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Memorial Edition

OF

THOMAS BEWICK'S WORKS.

VOL. I.

BRITISH BIRDS.

VOL. I.

LAND BIRDS.

MEMORIAL EDITION OF THOMAS BEWICK'S WORKS, in 5 vols., royal 8vo.; 750 numbered copies were printed, of which this is No.....

NEWCASTLE: R. WARD AND SONS,
April, 1885.

A

HISTORY

OF

BRITISH BIRDS.

BY THOMAS BEWICK.

VOL. I.

CONTAINING THE

HISTORY AND DESCRIPTION

OF

LAND BIRDS.

NEWCASTLE-UPON-TYNE:

PRINTED BY R. WARD AND SONS, FOR

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ASHMOLEAN
OXFORD
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PREFACE.

To those who attentively consider the subject of Natural History, as displayed in the animal creation, it will appear, that though much has been done to explore the intricate paths of Nature, and follow her through all her various windings, much yet remains to be done before the great œconomy is completely developed. Notwithstanding the laborious and not unsuccessful inquiries of ingenious men in all ages, the subject is far from being exhausted. Systems have been formed and exploded, and new ones have appeared in their stead; but, like skeletons injudiciously put together, they give but an imperfect idea of that order and symmetry to which they are intended to be subservient: they have, however, their use, but it is chiefly the skilful practitioner who is enabled to profit by them; to the less-informed they appear obscure and perplexing, and too frequently deter him from the great object of his pursuit.

To investigate, with any tolerable degree of success, the more retired and distant parts of the animal œconomy is a task of no small difficulty. An enquiry so desirable and so eminently useful would require the united efforts of many to give it the desired success. Men of leisure, of all descriptions, residing in the country, could scarcely find a more

delightful employment than in attempting to elucidate, from their own observations, the various branches of Natural History, and in communicating them to others. Something like a society in each county, for the purpose of collecting a variety of these observations, as well as for general correspondence, would be extremely useful. Much might be expected from a combination of this kind, extending through every part of the kingdom; a general mode of communication might be thereby established, in order to ascertain the changes which are continually taking place, particularly among the feathered tribes; the times of their appearing and disappearing would be carefully noted; the differences of age, sex, food, &c., would claim a particular degree of attention, and would be the means of correcting the errors which have crept into the works of some of the most eminent ornithologists, from an over-anxious desire of increasing the number of species: but it is reserved, perhaps, for times of greater tranquility, when mankind become more enlightened, and see clearly the vast importance of a knowledge of every department of Natural History; or when the mind becomes less engaged in the vicious, unprofitable, or frivolous pursuits of the world, and in lieu of such, leisure shall be found fully to devote its attention to those objects which enlarge its powers, give dignity to its exertions, and carry into the fullest effect plans for investigations of this sort,—that mistakes will be rectified respecting birds, and their beauties and uses appreciated, and that they will attract their due share of attention.

As a naturalist, no author has been more successful than the celebrated Count de Buffon: despising the restraints which methodical arrangements generally impose, he ranges at large through the various walks of Nature, and describes her with a brilliancy of colouring which only the most lively imagination could suggest. It must, however, be allowed, that in many instances this ingenious philosopher has overstepped the bounds of Nature, and, in giving the reins to

his own luxuriant fancy, has been too frequently hurried into the wild paths of conjecture and romance. The late Mr. White, of Selborne, has added much to the general stock of knowledge on this delightful subject, by attentively and faithfully recording whatever fell under his own observation, and by liberal communications to others.

As far as we could, consistently with the plan laid down in the following work, we have consulted, and we trust with some advantage, the works of Willoughby, Ray, and other naturalists. In the arrangement of the various classes, as well as in the descriptive part, we have taken as guides our intelligent and indefatigable countrymen, Pennant and Latham,* to whose elegant and useful labours the world is indebted for a fund of the most rational entertainment, and who will be remembered by every lover of Nature as long as her works have power to charm. The communications with which we have been favoured by those gentlemen who were so good as to notice our growing work, have been generally acknowledged, each in its proper place; it remains only that we be permitted to insert this testimony of our grateful sense of them.

In a few instances we have ventured to depart from the usual method of classification:† by placing the hard-billed birds, or those which live chiefly on seeds, next to those of the Pie kind, there seems to be a more regular gradation downwards, since only a few anomalous birds such as the Cuckoo, Hoopoe, Nuthatch, &c., intervene. The soft-billed birds, or those which subsist chiefly on worms, insects, and such like, are by this mode placed altogether, beginning with those of the Lark kind. To this we must observe that by dividing the various families of birds into two grand

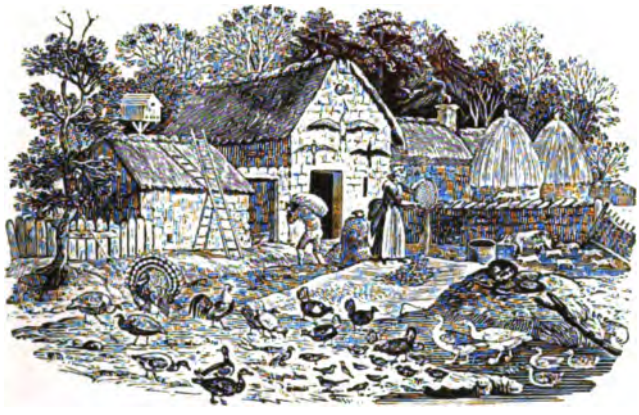
* The works of Col. Montagu have also been consulted in preparing the later editions for the press.

† These remarks on classification, relate to the author's arrangement in the previous editions of this work.

divisions, viz., Land and Water, a number of tribes have thereby been included among the latter, which can no otherwise be denominated Water Birds than as they occasionally seek their food in moist places, by small streamlets, or on the sea-shore; such as the Curlew, Woodcock, Snipe, Sandpiper, and many others. These, with such as do not commit themselves wholly to the waters, are thrown into a separate division under the denomination of Waders. The King-fisher lives entirely on fish, is constantly found on the margins of still waters, and may with greater propriety be denominated a Water Bird than many which come under that description; the Water Ouzel seems to have no connection with those birds among which it is usually classed; it is generally found among rapid-running streams, in which it chiefly delights, and from which it derives its support.

It may be proper to observe, that while one of the editors of this work was engaged in preparing the cuts, which are faithfully drawn from Nature, and engraved upon wood, the compilation of the descriptions of the first edition *(of the Land Birds)* was undertaken by the other, subject, however, to the corrections of his friend, whose habits had led him to a more intimate acquaintance with this branch of Natural History: the compiler, therefore, is answerable for the defects which may be found in this part of the undertaking, concerning which he has little to say, but that it was the production of those hours which could be spared from a laborious employment, and on that account he hopes the severity of criticism will be spared, and that it will be received with that indulgence which has been already experienced on a former occasion.

Newcastle-upon-Tyne, September, 1797.



INTRODUCTION

TO THE

HISTORY OF BRITISH LAND BIRDS.

In no part of the animal creation are the wisdom, the goodness, and the bounty of Providence displayed in a more lively manner than in the structure, formation, and various endowments of the feathered tribes. The symmetry and elegance discoverable in their outward appearance, although highly pleasing to the sight, are yet of much greater importance when considered with respect to their peculiar habits and modes of living, to which they are eminently subservient.

Instead of the large head and formidable jaws, the deep capacious chest, the brawny shoulders, and sinewy legs of the quadrupeds, we observe the pointed beak, the long and pliant neck, the gently swelling shoulder, the expansive wings, the tapering tail, the light and bony feet; which are all wisely calculated to assist and accelerate their motion through the yielding air. Every part of their frame is formed for lightness and buoyancy; their bodies are covered with a soft and delicate plumage, so disposed as to protect them from the intense cold of the atmosphere through which they pass; their wings are made of the lightest materials, and yet the force with which they strike the air is so great as to impel their bodies forward with astonishing rapidity, whilst the tail serves the purposes of a rudder to direct them to the different objects of their pursuit. The internal structure of birds is no less wisely adapted to the same purposes: all the bones are light and thin, and all the muscles, except those which are appropriated to the purpose of moving the wings, are extremely delicate and light; the lungs are placed close to the back-bone and ribs; the air entering into them by a communication from the windpipe, passes through, and is conveyed into a number of membraneous cells which lie upon the sides of the pericardium, and communicate with those of the sternum. In some birds these cells are continued down the wings, and extended even to the pinions, thigh-bones, and other parts of the body, which can be filled and distended with air at the pleasure of the animal.

The extreme singularity of this almost universal diffusion of air through the bodies of birds, has excited a strong desire to discover the intention of Nature in producing a conformation so extraordinary. The ingenious Mr. Hunter imagined that it might be intended to assist the animal in the act of flying, by increasing its bulk and strength, without adding to its weight. This opinion was corroborated by considering, that the feathers of birds, and particularly those of the wings, contain a great quantity of air. In opposition

to this, he informs us that the Ostrich, which does not fly, is nevertheless provided with air-cells dispersed through its body; that the Woodcock, and some other flying birds, are not so liberally supplied with these cells; yet, he elsewhere observes, that it may be laid down as a general rule, that in birds who are enabled to take the highest and longest flights, as the Eagle, this extension or diffusion of air is carried further than in others; and, with regard to the Ostrich, though it is deprived of the power of flying, it runs with amazing rapidity, and consequently requires similar resources of air. It seems therefore to be proved, evidently, that this general diffusion of air through the bodies of birds is of infinite use to them, not only in their long and laborious flights, but likewise in preventing their respiration from being stopped or interrupted by the rapidity of their motion through a resisting medium. Were it possible for man to move with the swiftness of a Swallow, the actual resistance of the air, as he is not provided with internal reservoirs similar to those of birds, would soon suffocate him.*

Birds may be distinguished, like quadrupeds, into two kinds or classes—granivorous and carnivorous; like quadrupeds too, there are some that hold a middle nature, and partake of both. Granivorous birds are furnished with larger intestines, and proportionally longer, than those of the carnivorous kind. Their food, which consists of grain of various sorts, is conveyed whole and entire into the first stomach or craw, where it undergoes a partial dilution by a liquor secreted from the glands and spread over its surface; it is then received into another species of stomach, where it is further diluted; after which it is transmitted into the

* May not this universal diffusion of air through the bodies of birds, account for the superior heat of this class of animals? The separation of oxygen from respirable air, and its mixture with the blood by means of the lungs, is supposed, by the ingenious Dr. Crawford, to be the efficient cause of animal heat.

gizzard, or true stomach, consisting of two very strong muscles, covered externally with a tendinous substance, and lined with a thick membrane of prodigious power and strength: in this place the food is completely triturated, and rendered fit for the operation of the gastric juices. The extraordinary powers of the gizzard in comminuting the food, so as to prepare it for digestion, would exceed all credibility, were they not supported by incontrovertible facts founded upon experiments. In order to ascertain the strength of these stomachs, the ingenious Spalanzani made the following curious and very interesting experiments:—Tin tubes, full of grain, were forced into the stomachs of Turkeys, and after remaining twenty hours, were found to be broken, compressed, and distorted in the most irregular manner.* In proceeding further, the same author relates, that the stomach of a Cock, in the space of twenty-four hours, broke off the angles of a piece of rough jagged glass, and upon examining the gizzard no wound or laceration appeared. Twelve strong needles were firmly fixed in a ball of lead, the points of which projected about a quarter of an inch from the surface; thus armed, it was covered with a case of paper, and forced down the throat of a Turkey; the bird retained it a day and a half, without showing the least symptom of uneasiness; the points of all the needles were broken off close to the surface of the ball, except two or three, of which the stumps projected a little. The same author relates another experiment, seemingly still more cruel: he fixed twelve small lancets, very sharp, in a similar ball of lead, which was given in the same manner to a Turkey-cock, and left eight hours in the stomach; at the expiration of which the organ was opened, but nothing appeared except the naked ball, the twelve lancets having been broken to pieces, the stomach remaining perfectly sound and entire. From these curious and well-attested facts, we may conclude,

* Spalanzani's Dissertations, vol. 1, page 12.

that the stones so often found in the stomachs of many of the feathered tribes, are highly useful in comminuting grain and other hard substances which constitute their food. "The stones," says the celebrated Mr. Hunter, "assist in grinding down the grain, and, by separating its parts, allow the gastric juices to come more readily into contact with it." Thus far the conclusion coincides with the experiments which have just been related. We may observe still further, that stones thus taken into the stomachs of birds, are seldom known to pass with the fæces, but being ground down and separated by the powerful action of the gizzard, are mixed with the food, and, no doubt, contribute essentially to the health of the animal.

Granivorous birds partake much of the nature and disposition of herbivorous quadrupeds. In both, the number of their stomachs, the length and capacity of their intestines, and the quality of their food, are very similar; they are likewise both distinguished by the gentleness of their tempers and manners. Contented with the seeds of plants, with fruits, insects, and worms, their chief attention is directed to procuring food, hatching and rearing their offspring, and avoiding the snares of men, and the attacks of birds of prey, and other rapacious animals. They are a mild and gentle race, and are in general so tractable as easily to be domesticated. Man, attentive and watchful to every thing conducive to his interest, has not failed to avail himself of these dispositions, and has judiciously selected from the numbers which every way surround him, those which are most prolific, and consequently most profitable: of these the Hen, the Goose, the Turkey, and the Duck are the most considerable, and form an inexhaustible store of rich, wholesome, and nutritious food.

Carnivorous birds are distinguished by those endowments and powers with which they are furnished by Nature for the purpose of procuring their food: they are provided with wings of great length, the muscles which move them being

proportionally large and strong, whereby they are enabled to keep long upon the wing in search of their prey; they are armed with strong hooked bills, and sharp and formidable claws; they have also large heads, short necks, strong and brawny thighs, and a sight so acute and piercing, as to enable them to view their prey from the greatest heights in the air, upon which they dart with inconceivable swiftness and undeviating aim; their stomachs are smaller than those of the granivorous kinds, and their intestines are much shorter. The analogy between the structure of rapacious birds and carnivorous quadrupeds is obvious; both of them are provided with weapons which indicate destruction and rapine; their manners are fierce and unsocial; and they seldom live together in flocks, like the inoffensive granivorous tribes. When not on the wing, rapacious birds retire to the tops of sequestered rocks, or to the depths of extensive forests, where they conceal themselves in sullen and gloomy solitude. Those which feed on carrion are endowed with a sense of smelling so exquisite, as to enable them to scent putrid carcases at astonishing distances.

Without the means of conveying themselves with great swiftness from one place to another, birds could not easily subsist; the food which Nature has so bountifully provided for them is so irregularly distributed, that they are obliged to take long journies to distant parts in order to gain the necessary supplies: at one time it is given in great abundance; at another it is administered with a very sparing hand; and this is one cause of those migrations so peculiar to the feathered tribes. Besides the want of food, there are two other causes of migration, viz., the want of a proper temperature of air, and a convenient situation for the great work of breeding and rearing their young. Such birds as migrate to great distances are alone denominated *birds of passage;* but most birds are, in some measure, birds of passage, although they do not migrate to places remote from their former habitations. At particular times of the year, most

birds remove from one country to another, or from the more inland districts towards the shores: the times of these migrations or flittings are observed with most astonishing order and punctuality; but the secrecy of their departure, and the suddenness of their re-appearance, have involved the subject of migration in general in great difficulty. Much of this difficulty arises from our not being able to account for their means of subsistence during the long flights of many of those birds which are obliged to cross immense tracts of water before they arrive at the places of their destination: accustomed to measure distance by the speed of those animals with which we are well acquainted, we are apt to overlook the superior velocity with which birds are carried forward in the air, and the ease with which they continue their exertions for a much longer time than can be done by the strongest quadruped.

Our swiftest horses are supposed to go at the rate of a mile in somewhat less than two minutes; and we have one instance on record of a horse being tried, which went at the rate of nearly a mile in one minute, but that was only for the small space of a second of time.* In this and similar instances we find, that an uncommon degree of exertion is attended with its usual consequences, debility, and a total want of power to continue that exertion; but the case is very different with birds; their motions are not impeded by similar causes; they glide through the air with a quickness superior to that of the swiftest quadruped, and they can continue on the wing with equal speed for a considerable length of time. Now, if we can suppose a bird to go at the rate of only half a mile in a minute, for the space of twenty-four hours, it will have gone over, in that time, an extent of more than seven hundred miles, which is sufficient to account for almost the longest migration; but if aided by a favourable current of air, there is reason to suppose that the

* See History of Quadrupeds.

same journey may be performed in a much shorter space of time. To these observations we may add, that the sight of birds is peculiarly quick and piercing; and from the advantage they possess in being raised to considerable heights in the air, they are enabled, with a sagacity peculiar to instinctive knowledge, to discover the route they are to take, from the appearance of the atmosphere, the clouds, the direction of the winds, and other causes; so that, without having recourse to improbable modes, it is easy to conceive, from the velocity of their speed alone, that most birds may transport themselves to countries lying at great distances, and across vast tracts of ocean.

The following observations from Catesby are very applicable; and shall conclude our remarks on this head:—"The manner of their journeyings may vary according as the structure of their bodies enables them to support themselves in the air. Birds with short wings, such as the Redstart, Black-cap, &c., may pass by gradual and slower movements; and their seems no necessity for a precipitate passage, as every day affords an increase of warmth, and a continuance of food. It is probable these itinerants may perform their journey in the night time, in order to avoid ravenous birds, and other dangers which day-light may expose them to. The flight of the smaller birds of passage across the seas has, by many, been considered as wonderful, and especially with regard to those with short wings, among which Quails seem, by their structure, little adapted for long flights; nor are they ever seen to continue on the wing for any length of time, and yet their ability for such flights cannot be doubted. The coming of these birds is certain and regular, from every year's experience, but the cause and manner of their departure have not always been so happily accounted for; in short, all we know of the matter ends in this observation,—that Providence has created a great variety of birds and other animals with constitutions and inclinations adapted to their several wants and necessities, as well as to the different

degrees of heat and cold in the several climates of the world whereby no country is destitute of inhabitants, and has given them appetites for the productions of those countries whose temperature is suited to their nature, as well as knowledge and ability to seek and find them out."

The migration of the Swallow tribe has been noticed by almost every writer on the natural history of birds, and various opinions have been formed respecting their disappearance, and the state in which they exist during that interval. Some naturalists suppose that they do not leave this island at the end of autumn, but that they lie in a torpid state till the beginning of summer, in the banks of rivers, in the hollows of decayed trees, in holes and crevices of old buildings, in sand banks and the like. That those which have been left behind, as well as other birds of passage, as soon as the cold weather sets in, fall into a torpid state, and remain so till the return of warmth brings them out of it, are facts which are now not doubted. But as to their passing the winter immersed in water, and being found there in "clusters, mouth to mouth, wing to wing, foot to foot," and of their creeping down reeds to their subaqueous retreats, as believed by Klein, as well as the similar description translated from Kalm's Travels in North America, though these *marvellous* narratives have been *credited* by some ornithologists, yet nothing can exceed the absurdity of both accounts.*

* Extract of a letter from the Rev. Wm. Floyer Cornish, of Totness, Devon, dated April 10, 1826:—"Being much interested in these delightful little visitors (the summer migratory birds), and at the same time very desirous to try whether I could keep them in health during the winter, I will inform you of the result of my experiments.

"I began with Nightingales, which I procured from London, and have kept them in perfect health, and stout in song, for several years; those that I have had have been old birds, taken in the spring soon after their arrival in England; they seldom recommenced their song till towards the end of the year, when they sang as finely as those in their native woods. Having succeeded so well with 'the

The celebrated Mr. John Hunter informs us, "that he had dissected many Swallows, but found nothing in them differ-

leaders of the vernal chorus,' my next attempt was with the Black-caps, but these have been nestlings. I have had two for the last three years, in perfect health and full song; another, which I reared last year, is at this moment roaring away most powerfully. I have kept also the larger as well as the smaller White-throats; three of the latter description, reared from the nest, have been with me for more than three years; one of them, while I am now writing, is warbling his little song very sweetly; two of them are cocks, and the other a hen, and they live very happily together, and are perfectly tame; they are so gentle and familiar, that they will take any little delicacy from our fingers or our lips, and are particularly fond of sugar and fruit, both of which I have seldom omitted giving to them, as well as to the Black-caps, every day; and at this season of the year, they regularly seem to expect their bit of apple. The song of the larger White-throat is much louder and more agreeable, but I have none of them at present. In consequence of seeing, in your history of the Swallow, the successful result of a gentleman in London to preserve them during the winter, I resolved to make the attempt of rearing some nestlings, which I did last year. On the 12th of July, a nest was brought to me by my desire, containing three young ones pretty well fledged; one of them, which I think was a hen, a few weeks after I had it, forced its way through the wires of the cage, and flew away perfectly strong, and joined others of its species which were flying near the house: the others, which are cock birds, have remained quite healthy during the winter, and cheered us particularly with their simple song on Christmas-day. They moulted towards the latter end of the year, but during the whole of this weakening period they did not cease to sing, not only during the day, but in the evening; in the cold weather the cage was well wrapped up and covered over with green baize: as the weather is now become milder, their covering is partially withdrawn: they have always been kept in a warm room, and occasionally been placed near a window; but when it was at all cold, they retired to their perch, which is covered with baize, as far as possible from it. Their food is the same which I give to the other summer birds—beef, mutton, veal, or lamb, not over dressed, chopped very small, and mixed with hard eggs, yellow as well as white, and a little chopped hempseed, on which they have thriven very well."

ent from other birds as to the organs of respiration," and therefore concludes that it is highly absurd to suppose that terrestrial animals can remain any long time under water without being drowned.

We have observed a single Swallow so late as the latter end of October; others assert that they have often been seen till near Christmas. Mr. White, in his Natural History of Selborne, mentions having seen a House Martin flying about in November, long after the general migration had taken place. Many more instances might be given of such late appearances.

To the many on record we shall add the following, which we received from a very intelligent master of a vessel, who, whilst he was sailing early in the spring between the islands of Minorca and Majorca, saw great numbers of Swallows flying northward, many of which, from fatigue, alighted on the rigging of the ship in the evening, but disappeared before morning. After all our enquiries into this branch of natural œconomy, much yet remains to be known, and we may conclude in the words of the pleasing and accurate Mr. White, "that whilst we observe with delight, with how much ardour and punctuality these little birds obey the strong impulse towards migration or hiding, imprinted on their minds by their great Creator, it is with no small degree of mortification we reflect, that after all our pains and enquiries, we are not yet quite certain to what regions they do migrate, and are still farther embarrassed to find that some actually do not migrate at all."

"Amusive birds! say where your hid retreat,
"When the frost rages, and the tempests beat;
"Whence your return, by such nice instinct led,
"When spring, sweet season, lifts her bloomy head!
"Such baffled searches mock man's prying pride,
"The God of Nature is your secret guide!"

Most birds, at certain seasons, live together in pairs; the union is formed in the spring, and generally continues whilst

the united efforts of both are necessary in forming their temporary habitations, and in rearing and maintaining their offspring. Eagles and other birds of prey continue their attachment for a much longer time, and sometimes for life. The nests of birds are constructed with such exquisite art, as to exceed the utmost exertion of human ingenuity to imitate them. Their mode of building, the materials they make use of, as well as the situations they select, are as various as the different kinds of birds, and are all admirably adapted to their several wants and necessities. Birds of the same species, whatever region of the globe they inhabit, collect the same kind of materials, arrange them in the same manner, and make choice of similar situations for fixing the places of their temporary abodes. To describe minutely the different kinds of nests, the various substances of which they are composed, and the judicious choice of situations, would swell this part of our work much beyond its due bounds. Every part of the world furnishes materials for the ærial architects: leaves and small twigs, roots and dried grass, mixed with clay, serve for the external; whilst moss, wool, fine hair, and the softest animal and vegetable downs, form the warm internal part of these commodious dwellings. The following beautiful lines from Thomson are highly descriptive of the busy scene which takes place during the time of nidification:—

". . . . . Some to the holly hedge,
"Nestling, repair, and to the thicket some;
"Some to the rude protection of the thorn
"Commit their feeble offspring: the cleft tree
"Offers its kind concealment to a few,
"Their food its insects, and its moss their nests:
"Others, apart, far in the grassy dale
"Or roughening waste, their humble texture weave:
"But most in woodland solitudes delight,
"In unfrequented glooms or shaggy banks,
"Steep, and divided by a babbling brook,
"Whose murmurs soothe them all the live-long day,

"When by kind duty fixed. Among the roots
"Of hazel, pendent o'er the plaintive stream,
"They frame the first foundation of their domes,
"Dry sprigs of trees, in artful fabric laid,
"And bound with clay together. Now 'tis nought
"But restless hurry through the busy air,
"Beat by unnumber'd wings. The Swallow sweeps
"The slimy pool, to build the hanging house
"Intent: and often from the careless back
"Of herds and flocks, a thousand tugging bills
"Pluck hair and wool; and oft, when unobserved,
"Steal from the barn a straw; till soft and warm,
"Clean and complete, their habitation grows."

After the business of incubation is over, and the young are sufficiently able to provide for themselves, the nests are abandoned by the parents, excepting by those of the Eagle kind.

The various gifts and endowments which the great Author of Nature has so liberally bestowed upon his creatures, demand, in a peculiar manner, the attention of the curious Naturalist; among the feathered tribes in particular, there is much room, in this respect, for minute and attentive investigation. In pursuing our inquiries into that system of œconomy, by which every part of Nature is upheld and preserved, we are struck with wonder in observing the havock and destruction which every where prevail throughout the various orders of beings inhabiting the earth. Our humanity is interested in that law of Nature which devotes to destruction myriads of creatures to support and continue the existence of others; but although it is not allowed us to unravel the mysterious workings of Nature through all her parts, or unfold her deep designs, we are, nevertheless, strongly led to the consideration of the means by which individuals, as well as species, are preserved. The weak are frequently enabled to elude the pursuits of the strong by flight or stratagem; some are screened from the pursuits of their

enemies by an arrangement of colours happily assimilated to the places which they most frequent, and where they find either food or repose: thus the Wryneck is scarcely to be distinguished from the bark of the tree on which it feeds; or the Snipe from the soft and mossy ground by the springs of water which it frequents: the Great Plover finds its chief security in stony places, to which its colours are so nicely adapted, that the most exact observer may be very easily deceived. The attentive ornithologist will not fail to discover numerous instances of this kind, such as the Partridge, Plover, Quail, &c.

Some are indebted to the brilliancy of their colours as the means of alluring their prey; of this the King-fisher is a remarkable instance, and deserves to be particularly noticed. This beautiful bird has been observed, in some sequestered place near the edge of a rivulet, exposing the vivid colours of its breast to the full rays of the sun, and fluttering with expanded wings over the smooth surface of the water; the fish, attracted by the brightness and splendour of the appearance, are detained, whilst the wily bird darts down upon them, with unerring aim. We do not say that the mode of taking fish by torch-light has been derived from this practised by the King-fisher, but every one must be struck by the similarity of the means. Others, again, derive the same advantage from the simplicity of their exterior appearance; of this the Heron will serve for an example. He may frequently be seen standing motionless by the edge of a piece of water, waiting patiently the approach of his prey, which he never fails to seize as soon as it comes within reach of his long neck; he then re-assumes his former position, and continues to wait with the same patient attention as before.

Most of the smaller birds are supported, especially when young, by a profusion of caterpillars, small worms, and insects; on these they feed, and thus they contribute to preserve the vegetable world from destruction. This is

contrary to the commonly-received opinion, that birds, particularly Sparrows, do much mischief in destroying the labours of the gardener and the husbandman. It has been observed, "that a single pair of Sparrows, during the time they are feeding their young, will destroy about four thousand caterpillars weekly; they likewise feed their young with butterflies and other winged insects, each of which, if not destroyed in this manner, would be productive of many thousands of caterpillars." Swallows are almost continually upon the wing, and in their curious winding flights destroy immense numbers of flies and other insects, which are continually floating in the air, and which, if not destroyed by these birds, would render it unfit for the purposes of life and health.

That active little bird, the Tomtit, which is generally supposed hostile to the young and tender buds that appear in the spring, when attentively observed, may be seen running up and down among the branches, and picking up the eggs* of insects, or the small maggots or worms that are concealed in the blossoms, and which would effectually destroy the fruit. As the season advances, various other small birds, such as the Redbreast, Wren, Hedge Warbler, White-throat, Redstart, &c., are all engaged in the same useful work, and may be observed examining every leaf and feeding upon the insects which they find beneath them. These are a few instances of that superintending providential care, which is continually exerted in preserving the various ranks and orders of beings in the scale of animated Nature; and although it is permitted that myriads of individuals should every moment be destroyed, not a single species is lost, but every link of the great chain remains unbroken.

Great Britain produces a more abundant variety of birds than most northern countries, owing to the various condition of our lands, from the highest state of cultivation to that of

* On these they almost solely live in winter.

the wildest, most mountainous, and woody. The great quantities of berries and other kinds of fruit produced in our hedges, heaths, and plantations, bring small birds in great numbers, and birds of prey in consequence: our shores, and the numerous little islands adjacent to them, afford shelter and protection to an infinite variety of almost all kinds of water fowl. To enumerate the various kinds of birds that visit this island annually will not, we presume, be unacceptable to our readers, nor improper in this part of our work. The following are chiefly selected from Mr. White's Natural History of Selborne, and are arranged nearly in the order of their appearing:—

1. Wryneck	Middle of March.
2. Smallest Willow Wren . . .	Latter end of ditto.
3. House Swallow	Middle of April.
4. Martin	Middle of April.
5. Sand Martin	Ditto.
6. Blackcap	Ditto.
7. Nightingale	Beginning of April.
8. Cuckoo	Middle of ditto.
9. Middle Willow Wren . . .	Ditto.
10. White-throat	Ditto.
11. Redstart	Ditto.
12. Great Plover or Stone Curlew .	End of March.
13. Grasshopper Lark	Middle of April.
14. Swift	Latter end of ditto.
15. Lesser Reed Sparrow . . .	
16. Corn Crake or Land Rail . .	
17. Largest Willow Wren . . .	End of April.
18. Fern Owl	Latter end of May.
19. Flycatcher	Middle of ditto.*

* This, according to Mr. White, is the latest summer bird of passage; but the arrival of some of the summer birds is very uncertain: those which are the first in some seasons, are the last in others: this can only be determined by their song.

To this list of migratory birds, some ornithologists have added the Larks, Ouzels, Thrushes, and Starlings.

Most of the soft-billed birds feed on insects, and not on grain or seeds, and therefore usually retire before winter; but the following, though they eat insects, remain with us during the whole year, viz., the Redbreast, Hedge Warbler, and Wren, which frequent out-houses and gardens, and eat spiders, small worms, crumbs, &c.; the Pied, the Yellow, and the Grey Wagtail, which frequent the heads of springs, where the waters seldom freeze, and feed on the aureliæ of insects usually deposited there. Besides these, the Whinchat, the Stonechat, and the Golden-crested Wren,* are seen with us during the winter; the latter, though the least of all the British birds, is very hardy, and can endure the utmost severity of our winters. The Wheatear, though not common, sometimes stays the winter with us.—Of the winter birds of passage, the following are the principal, viz.:—

1. The Redwing.

2. The Fieldfare.—[Both these arrive in great numbers about Michaelmas, and depart about the end of February, or beginning of March, but are sometimes detained by easterly winds till the middle of April.]

3. The Hooded Crow visits us in the beginning of winter, and departs with the Woodcock.

* A pair of these little birds alighted on the deck of a ship, belonging to Newcastle, commanded by John Tone, when the vessel had passed about mid-seas over between Newfoundland and the British shores. The captain nursed them in the cabin with all possible tenderness, but without success, for they were found the next morning dead, each with its head under the other's wing; they most likely had been blown out of their course by a tempest, in their long migratory flight from Sweden, Norway, or Lapland, to their halting places, the Zetland or the Orkney Isles, or had been driven, in their last passage to this country, off the land, by adverse gales; like many thousands of other land birds thus blown to sea to become food for fishes.

4. The Woodcock appears about Michaelmas, and leaves us about the beginning of March, but is sometimes detained till the middle of April.

5. Snipes are considered by Mr. White as birds of passage, though he acknowledges that they frequently breed with us. Mr. Pennant remarks, that their young are so frequently found in Britain, that it may be doubted whether they ever entirely leave this island.

6. The Judcock.

7. The Wild Pigeon.—[Of the precise time of its arrival we are not quite certain, but suppose it may be some time in April. Some ornithologists assert that they do not migrate. Very little seems to be certainly known of the stay and departure of this species of Dove.]

8. The Wild Swan frequents the coasts of this island in large flocks, but it is not supposed to breed with us. It has been chiefly met with in the northern parts, and is said to arrive at Lingey, one of the Hebrides, in October, and to remain there till March, when it retires more northward to breed.

9. The Wild Goose passes southward in October, and returns northward in April.*

With regard to the Duck kind in general, they are mostly birds of passage. Mr. Pennant says, "Of the numerous species that form this genus, we know of no more than five that breed here, viz., the Tame Swan, the Tame Goose, the Shield Duck, the Eider Duck, and a very small number of the Wild Ducks: the rest contribute to form that amazing multitude of water fowls that annually repair from most

* Sometimes, for reasons not yet accounted for by naturalists, they return northward at the latter end of the year.

A flock passed over Newcastle northward on the 6th of December, 1813.

Another passed on the 22nd of December, 1813.

Another on the 25th November, 1814.

One passed *southward* on the 12th December, 1814, and they have often since been noticed to pass in the same way.

parts of Europe to the woods and lakes of Lapland and other arctic regions, there to perform the functions of incubation and nutrition in full security. They and their young quit their retreats in September, and disperse themselves over Europe. With us they make their appearance in the beginning of October, circulate first round our shores, and when compelled by severe frost, betake themselves to our lakes and rivers." In winter, the Bernacles and Brent Geese appear in vast flocks on the north-west coast of Britain, and leave us in February, when they migrate as far as Lapland, Greenland, or Spitzbergen.

The Solan Geese or Gannets are birds of passage; their first appearance is in March, and they continue till August or September. The long-legged Plover and Sanderling visit us in winter; and it is worthy of remark, that most of the species of the Scolopax and Tringa genera, as well as some of the Plovers, which forsake us in the spring, retire to Sweden, Poland, Russia, Norway, and Lapland, to breed, and return to us as soon as the young are able to fly; for the frosts, which set in early in those countries, deprive them totally of the means of subsistence.

Besides these, there is a great variety of birds which perform partial migrations, or flittings, from one part of the country to another. During hard winters, when the surface of the earth is covered with snow, many birds, such as Larks, Snipes, &c., withdraw from the inland parts of the country towards the sea-shores in quest of food; others, as the Wren, the Redbreast, and a variety of small birds, quit the fields, and approach the habitations of men. The Chatterer, the Grosbeak, and the Crossbill, are only occasional visitors, and observe no regular times in making their appearance. Great numbers of the Chatterer were taken in the county of Northumberland, in the latter end of the years 1789 and 1790, before which they had seldom been observed so far south as that county, but since that time, however, several have visited the north of England.

The term of life varies greatly in birds, and does not seem to bear the same proportion to the time of acquiring their growth, as has been remarked with regard to quadrupeds. Most birds acquire their full dimensions in a few months, and are capable of propagation the first summer after they are hatched. In proportion to the size of their bodies, birds possess more vitality, and live longer, than either man or quadrupeds: notwithstanding the difficulties which arise in ascertaining the ages of birds, there are instances of great longevity in many of them. Geese and Swans have been known to attain to the age of seventy and upwards; Ravens are very long-lived birds, they are said sometimes to exceed a century; Eagles are supposed to arrive at a great age; Pigeons are known to live more than twenty years; and even Linnets and other small birds have been kept in cages from fifteen to twenty years.

To the practical ornithologist there arises a considerable gratification in being able to ascertain the distinguishing characters of birds as they appear at a distance, whether at rest, or during their flight; for not only every genus has something peculiar to itself, but each species has its own appropriate marks, by which a judicious observer may discriminate almost with certainty. Of these, the various modes of flight (whether seen by day-light, or heard in their passing at night) afford the most certain and obvious means of distinction, and should be noted with the most careful attention. From the bold and lofty flight of the Eagle, to the short and sudden flittings of the Sparrow or the Wren, there is an ample field for the curious investigator of Nature, on which he may dwell with inexpressible delight, tracing the various movements of the feathered nations which every where present themselves to his view. The notes, or, as it may with more propriety be called, the language, of birds, whereby they are enabled to express, in no inconsiderable degree, their various passions, wants, and feelings, must be particularly noticed. By the great power of their

voice,* they can communicate their sentiments and intentions to each other, and are enabled to act by mutual concert: that of the wing, by which they can remove from place to place with inconceivable celerity and dispatch, is peculiar to the feathered tribes; it gives them a decided superiority over every species of quadrupeds, and affords them the greatest means of security from those attacks to which their weakness would otherwise expose them. The social instinct among birds is peculiarly lively and interesting, and likewise proves an effectual means of preservation from the various arts which are made use of to circumvent and destroy them. Individuals may perish, and the species may suffer a diminution of its numbers; but its instincts, habits, and œconomy remain entire.

* White's Selborne.

AN

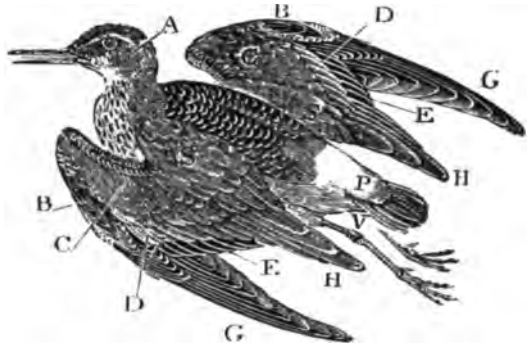
EXPLANATION

OF THE

Technical Terms used in this Work:

TO WHICH ARE SUBJOINED,

SOME OF THOSE USED BY LINNÆUS AND OTHER ORNITHOLOGISTS, DESCRIPTIVE OF THE PARTICULAR PARTS PECULIAR TO SOME SPECIES.



A—AURICULARS,—feathers which cover the ears.

BB—The BASTARD WING, [*alula spuria*, Linn.] three or five quill-like feathers, placed at a small joint rising at the middle part of the wing.

CC—The LESSER COVERTS of the WINGS, [*tectrices primæ*, Linn.] small feathers that lie in several rows on the bones of the wings. The UNDER COVERTS are those that line the inside of the wings.

DD—The GREATER COVERTS, [*tectrices secundæ*, Linn.] the feathers that lie immediately over the quill feathers and the secondaries.

GG—The PRIMARIES, or PRIMARY QUILLS, [*primores* Linn.] the largest feathers of the wings: they rise from the first bone.

EE—The SECONDARIES, or SECONDARY QUILLS, [*secondariæ*, Linn.] those that rise from the second bone.

HH—The TERTIALS. These also take their rise from the second bone, at the *elbow joint*, forming a continuation of the secondaries, and seem to do the same with the scapulars, which lie over them. These feathers are so long in some of the *Scolopax* and *Tringa* genera, that when the bird is flying they give it the appearance of having four wings.

SS—The SCAPULARS, or SCAPULAR FEATHERS, take their rise from the shoulders, and cover the sides of the back.

P—COVERTS of the TAIL, [*uropygium*, Linn.] These feathers cover it on the upper side, at the base.

V—The VENT FEATHERS, [*crissum*, Linn.] those that lie from the vent, or *anus*, to the tail underneath.

IRIS, (plural IRIDES) the part which surrounds the pupil of the eye.

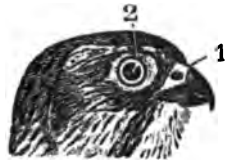
MANDIBLES,—the upper and under parts of the bill.

COMPRESSED,—flatted at the sides vertically.

DEPRESSED,—flatted horizontally.

CUNEATED,—wedge-shaped.

Head of the Merlin Hawk.



1—The CERE, [*cere*, Linn.] the naked skin which covers the base of the bill, as in the Hawk kind.

2—The ORBITS, [*orbita*, Linn.] the skin which surrounds the eye. It is generally bare, but particularly in the Parrot and the Heron.

Head of the Great Ash-coloured Shrike.

1—When the bill is notched near the tip, as in Shrikes, Thrushes, &c., it is called by Linnæus, *rostrum emarginatum*.

2—*Vibrissæ*, (Linn.) are hairs that stand forward like feelers: in some birds they are slender, as in Flycatchers, &c., and point both upwards and downwards, from both the upper and under sides of the mouth.

3—*Capistrum*—a word used by Linnæus to express the short feathers on the forehead, just above the bill. In some birds these feathers fall forward over the nostrils: they quite cover those of the Crow.

Rostrum cultratum, (Linn.) when the edges of the bill are very sharp, as in that of the Crow.

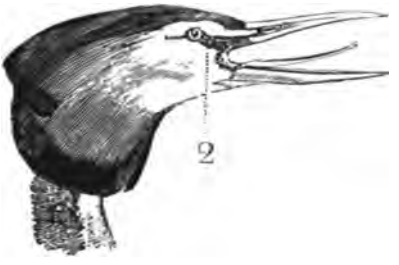
Head of the Night-jar.

1—*Vibrissæ pectinatæ*, (Linn.) These hairs in this bird are very stiff, and spread out on each side like a comb, from the upper sides of the mouth only.

Foot of the Night-jar.

Showing the middle toe claw SERRATED like a saw. PECTINATED signifies toothed like a comb.

Head of the Great-crested Grebe.



2—The LORE, [*Lorum*, Linn.] the space between the bill and the eye, which in this genus is bare, but in other birds is generally covered with feathers.

Foot of the King-fisher.

Shewing the peculiar structure, in the toes being joined together from their origin to the end joints.

Foot of the Grey Phalarope.

FIN-FOOTED and SCALLOPED, [*pinnatus*, Linn.] as are also those of the Coots.

Foot of the Red-necked Grebe.

Toes furnished on their sides with broad plain membranes. [*Pes lobatus*, Linn.]

Foot of the Cormorant.

Shewing all the four toes connected by webs.

SEMI-PALMATED, [*semi-palmatus*, Linn.] when the middle of the webs reach only about half the length of the toes.

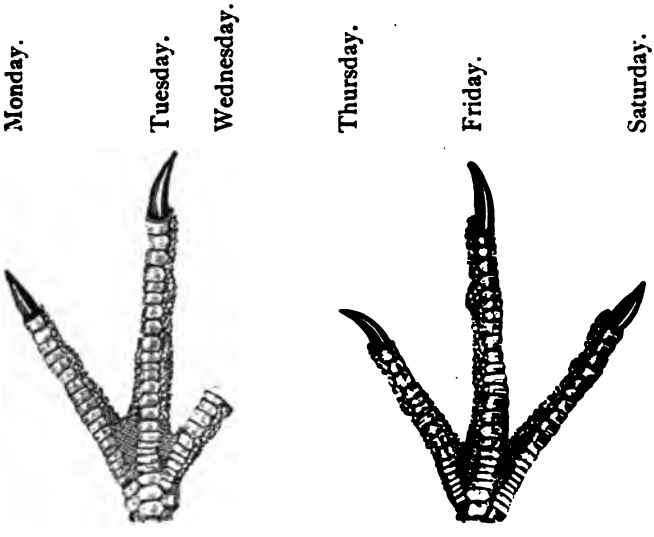
CILIATED, [*lingua ciliata*, Linn.] when the tongue is edged with fine bristles, as in Ducks.

NOSTRILS LINEAR,—when they are extended lengthwise in a line with the bill, as in Divers, &c.

NOSTRILS PERVIOUS,—when they are open, and may be seen through from side to side, as in Gulls, &c.

A Method of dating dead Game. Recommended in Sir Thomas Frankland's "Cautions to Young Sportsmen," ed. 2, page 8.

"The following is a simple method of dating the day on which birds were killed. Let the six fore toes represent the six shooting days of the week. The left toe of the left foot answering for Monday, count from thence to the right toe of the right foot, which is to pass for Saturday. Let any portion of that toe which corresponds to the day on which the bird was killed, be cut off. If a part of one or more toes has been shot off, cut that which is to register the day still shorter. I am aware that a whole foot may be carried away; but in general the practice will answer. Perhaps in a well-regulated larder, what I propose may be idle; but it is paricularly useful in the case of game sent weekly from distant manors."



Left Foot. Right Foot.

N.B. This bird is supposed to have been killed on a Wednesday.

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BRITISH BIRDS.

SYNOPSIS.

The naturalised and domesticated species are distinguished by an asterisk (*).

CLASS AVES.

ORDER I.—RAPACES.

BILL short, strong, compressed, covered at the base with a cere, hooked towards the end: nostrils open: feet strong, muscular, short, or of moderate length; feathered to the heel or the toes: toes three before and one behind; articulated on the same plane, entirely divided, or united at the base by a membrane; rough beneath; armed with strong hooked claws.

Gen. 1.—VULTUR.—Bill thick, strong, and deep, base covered with a cere; upper mandible straight, curved towards the point; under mandible rounded, straight, and becoming narrower towards the point: head naked, or covered with short down: nostrils naked, lateral, placed near the edge of the cere: feet strong, claws slightly hooked; middle toe long, united at the base to the outer toe: wings long; fourth quill feather the longest, the first short, not equal to the sixth.

V. fulvus, *Linn.*

Gen. 2.—CATHARTES.—Bill long, slender, straight, hooked at the end; cere naked, extending to half the length of the bill; upper mandible swelled towards the tip: head oblong, naked as well as the upper part of the neck:

nostrils near the middle of the bill, longitudinal, lateral, pervious, placed near the ridge, sometimes surmounted by fleshy appendages: feet naked, slender, middle toe long, united at the base to the outer one: wings slightly acuminated; the first quill short, the third longest.

C. Percnopterus, *Temm.* - - v. 1, p. 3

Gen. 3.—FALCO.—Head covered with feathers: bill hooked, generally curved from its base, cere more or less hairy; upper mandible furnished with one or two teeth; lower mandible slightly rounded and emarginated: nostrils round or oval, placed in the cere: feet covered with scales, or feathered to the toes; the outer toe generally united at its base to the middle one; claws much hooked.

Division 1.—Bill short, curved from its base; upper mandible strongly toothed; lower one emarginated: legs robust, toes long and strong; claws much hooked and sharp; tarsi short: first and third quills of equal length, second longest.

F. Grœnlandicus, *Linn.*, *Hancock.* - v. 1, p. 8
F. Islandicus, *Lath.*, *Hanc.*
F. Lanarius, *Linn.* - - - v. 1, p. 10
F. peregrinus, *Gmel.* - - - v. 1, p. 11
F. Subbuteo, *Linn.* - - - v. 1, p. 13
F. Æsalon, *Gmel.* - - - v. 1, p. 15-17
F. Tinnunculus, *Linn.* - - v. 1, p. 18-20
F. rufipes, *Bechstein.*

Division 2.—Bill strong, rather long, not bent from the base: tarsi naked or covered with feathers; feet and toes robust; claws strong and much curved: fourth and fifth quills longest.

F. fulvus, *Linn.* - - - v. 1, p. 21-23
F. nævius, *Linn.*
F. Albicilla, *Linn.* - - - v. 1, p. 25-27
F. Haliaëtus, *Linn.* - - - v. 1, p. 29

Division 3.—Wings short, reaching to nearly half the length of the tail; fourth quill longest: bill short, bending from the base: tarsi and toes long; middle toe longest.

F. palumbarius, *Linn.* - - v. 1, p. 31
F. Nisus, *Linn.* - - - v. 1. p. 34

Division 4.—Nostrils oblique, oval: tarsi short, feathered a little below the heel: bill rather slender, bending slightly from the base: wings very long; first quill shorter than the sixth, second a little shorter than the fifth, the third almost equal in length to the fourth.

F. Milvus, *Linn.* - - - v. 1, p. 36

Division 5.—Bill much curved from its base, the point very much bent: wings long; second quill longest: tail forked.

F. furcatus, *Linn.*

Division 6.—Bill bending from the base; nostrils oval: tarsi short, partly naked, or clothed with feathers: wings long; first quill short, the second and third shorter than the fourth, which is longest.

F. Buteo, *Linn.* - - - v. 1. p. 38
F. Lagopus, *Linn.* - - - v. 1. p. 40
F. apivorus, *Linn.* - - - v. 1. p. 42

Division 7.—Tarsi long and slender, naked: wings long; the first quill very short, not so long as the fifth, the third or fourth longest: face surrounded with a ruff of small feathers.

F. rufus, *Linn.* - - - v. 1. p. 44
F. cyaneus, *Mont.* - - - v. 1. p. 46-48
F. cineraceus, *Mont.* - - - v. 1, p. 49

Gen. 4.—STRIX.—Bill compressed at the point, bending from the base: nostrils lateral, pierced in the cere, oval or rounded; covered wholly or in part with hairs directed forwards: eyes very large, surrounded with radiating feathers: feet thickly covered with feathers often to the claws; three toes before and one behind, entirely divided; outer toe reversible: the external edges of the outer quills generally fringed; first quill shortest, the second not quite so long as the third, which is generally longest.

Division 1.—Without tufts on the head.

* Diurnal.
S. nyctea, *Linn.* - - - v. 1. p. 53
S. funerea, *Lath.*
* * Nocturnal.
S. Aluco, *Meyer.* - - - v. 1, p. 55
S. flammea, *Linn.* - - - v. 1. p. 57
S. passerina, *Temm.*
S. Tengmalmi, *Gmel.* - - v. 1. p. 59
Division 2.—With tufts on the head.
S. Brachyotos, *Gmel.* - - v. 1, p. 61-63
S. Bubo, *Linn.* - - - v. 1. p. 64
S. Otus, *Linn.* - - - v. 1, p. 66
S. Scops, *Linn.* - - - v. 1. p. 68

ORDER II.—OMNIVORES.

BILL moderate, strong, edges sharp or cultrated; upper mandible slightly bending towards the tip: three toes before and one behind: wings moderate; quill feathers terminating in a point.

Gen. 5.—CORVUS.—Bill curved towards the point, strong, compressed, edges sharp and cutting; under mandible nearly straight: nostrils oval, basal, and covered by stiff feathers directed forwards: wings acuminated; fourth quill longest, first shorter than the second and third: toes entirely divided; tarsus longer than the middle toe.

C. Corax, *Linn.* - - - v. 1. p. 72
C. Corone, *Linn.* - - - v. 1, p. 74
C. Cornix, *Linn.* - - - v. 1. p. 76
C. frugilegus, *Linn* - - - v. 1, p. 78
C. Monedula, *Linn.* - - - v. 1, p. 81

Gen. 6.—GARRULUS.—Bill short, compressed, strong, covered at the base with stiff feathers inclined forwards; both mandibles bent towards the tip; the upper one slightly emarginated: crown feathers generally long, and capable of

erection: wings rounded; fifth and sixth quills longest: tail cuneated and slightly rounded.

Division 1.—Tail long, cuneated.

G. Picus, *Temm.* - - - v. 1, p. 83

Division 2.—Tail slightly rounded.

G. glandarius, *Flem.* - - v. 1, p. 85

Gen. 7.—NUCIFRAGA.—Bill straight; upper mandible rounded, longer than the lower one; both depressed at the point, and slightly obtuse: nostrils round, basal, and covered by short feathers standing forwards: wings acuminated, rather long; first quill shorter than the second and third, fourth longest: tail rounded.

N. Caryocatactes, *Briss.* - - v. 1. p. 88

Gen. 8.—PYRRHOCORAX.—Bill rather slender, arched from the base, and pointed, slightly compressed: nostrils basal, oval, covered with small reflected feathers: feet strong, three toes before, one behind; tarsus longer than the middle toe; the outer toe united by a membrane to the middle one; claws strong, much curved: fourth and fifth quills longest: tail square.

P. Graculus, *Temm.* - - - v. 1, p. 89

Gen. 9.—BOMBYCILLA.—Bill short, straight; upper mandible slightly arched, with a tooth near its extremity: nostrils basal, oval, open, concealed by small feathers directed forwards: the outer toe joined to the middle one: first and second quills longest.

B. garrula, *Temm.* - - - v. 1, p. 91

Gen. 10.—CORACIAS.—Bill moderate, compressed, cultrated; upper mandible curved towards the point: nostrils basal, lateral, linear, half closed by a membrane covered with feathers: tarsus shorter than the middle toe; toes entirely divided: first quill a little shorter than the second, which is longest.

C. garrula, *Linn.* - - - v. 1, p. 93

Gen. 11.—ORIOLUS.—Bill subconic, slightly depressed at the base; upper mandible carinated above, and slightly notched near the point: nostrils small, basal, lateral, situate in a large membrane: tarsus about the same length as the middle toe, which is joined at its base to the outer one: third quill feather longest.

O. Galbula, *Linn.* - - - v. 1, p. 96

Gen. 12.—STURNUS.—Bill almost straight, depressed especially at the tip, rather blunt; base of the upper mandible advancing on the forehead, the edges projecting a little over the under mandible: nostrils basal, half closed by an arched membrane: the outer toe united to the base of the middle one as far as the first joint: second quill longest, first very short.

S. vulgaris, *Linn.* - - v. 1, p. 98-101

Gen. 13.—PASTOR.—Bill subconic, compressed, slightly curved, with a small notch near the point: nostrils oval, lateral, half closed by a membrane clothed with small feathers: feet strong, middle toe much shorter than the tarsus: the outer toe joined at its base to the middle one: first quill very short, second and third longest.

P. roseus, *Temm.* - - - v. 1, p. 102

ORDER III.—INSECTIVORES.

BILL moderate, straight, rounded, edges somewhat sharp; upper mandible bent, generally furnished at the base with bristly hairs standing forwards: three toes before and one behind, placed on the same plane; outer toe connected to the middle one as far as the first joint.

Gen. 14.—LANIUS.—Bill robust, straight at the base, compressed; upper mandible hooked at the point, and

strongly notched; furnished at the base with strong bristles directed forwards: nostrils basal, lateral, nearly round, partly closed by a membrane: tarsus longer than the middle toe; three toes before and one behind, outer toe connected to the middle one as far as the first joint: first quill feather short, third and fourth longest.

L. Excubitor, *Linn.* - - - v. 1, p. 108
L. rufus, *Briss.* - - - v. 1, p. 110
L. Collurio, *Linn.* - - - v. 1, p. 112-114

Gen. 15.—MUSCICAPA.—Bill angular, depressed at the base, compressed towards the point, which is deflected; upper mandible furnished with stiff bristles: nostrils basal, lateral, oval, partly concealed by hairs: tarsus as long or longer than the middle toe; side toes generally of equal length, outer toe connected as far as the first joint of the middle one: first quill very short, third and fourth longest.

M. grisola, *Linn.* - - - v. 1, p. 117
M. luctuosa, *Temm.* - - v. 1, p. 119-121

Gen. 16.—TURDUS.—Bill convex above, point compressed; upper mandible emarginated, slightly curved; gape furnished with a few hairs: nostrils basal, lateral, oval, half closed by a naked membrane: first quill very short, in some species the third is longest, in others the fourth: tarsus longer than the middle toe; the outer toe connected at the base to the middle one.

T. Whitei, *Eyton.*
T. viscivorus, *Linn.* - - - v. 1, p. 122
T. pilaris, *Linn.* - - - v. 1, p. 124
T. musicus, *Linn.* - - - v. 1, p. 126
T. iliacus, *Linn.* - - - v. 1, p. 128
T. torquatus, *Linn.* - - - v. 1, p. 130
T. Merula, *Linn.* - - - v. 1, p. 132
T. chrysorhæus, *Temm.*
T. saxatilis, *Lath.*
T. cyaneus, *Gmel.*

Gen. 17.—CINCLUS.—Bill straight, compressed, rounded near the end; point of the upper mandible slightly curved downwards upon the lower one: nostrils basal, lateral, placed in a depression, longitudinally cleft, partly covered by a membrane: head small and narrow: three toes before and one behind: tarsus longer than the middle toe; the lateral toes equal in length: first quill feather very short, third and fourth longest.

C. aquaticus, *Bechst.* - - - v. 1, p. 134

Gen. 18.—SYLVIA.—Bill slender, pointed, broader than high at the base; tip of the upper mandible slightly emarginated, and bending a little over the lower one, which is straight: nostrils basal, lateral, oval, partly concealed by a membrane: tarsus longer than the middle toe; outer toe joined at the base to the middle one; hind claw bent and shorter than the toe: first quill very short, sometimes almost abortive, second shorter than the third, third and fourth longest,

* Top of the head depressed: wings short, rounded: tail long, often cuneiform.

S. Locustella, *Lath.* - - - v. 1, p. 138
S. Phragmitis, *Bechst.* - - - v. 1, p. 140
S. arundinacea, *Lath.* - - - v. 1, p. 141
S. luscinoides, *Savi.*

** Tail long and equal: bill straight, compressed at the point.

S. Luscinia, *Lath.* - - - v. 1, p. 143
S. Atricapilla, *Lath.* - - - v. 1, p. 146
S. hortensis, *Bechst.* - - - v. 1, p. 148
S. cinerea, *Lath.* - - - v. 1, p. 150
S. Curruca, *Lath.* - - - v. 1, p. 152
S. provincialis, *Temm.* - - - v. 1, p. 154
S. Rubeculæ, *Lath.* - - - v. 1, p. 155
S. Suecica, *Lath.* - - - v. 1, p. 159
S. Tithys, *Scopoli.*
S. Phœnicurus, *Lath.* - - - v. 1, p. 161

*** Wings reaching to the middle of the tail, which is slightly forked.

S. sibilatrix, *Bechst.* - - - v. 1, p. 163

S. Trochilus, *Lath.* - - - v. 1, p. 165
S. rufa, *Lath.* - - - - v. 1, p. 166

Gen. 19.—REGULUS.—Bill slender, straight, subulate, compressed towards the point, the edges dilated at the base: nostrils oval, concealed by feathers directed forwards: feet slender; middle toe united at the base to the outer one; hind toe strongest: first quill very short, fourth and fifth longest.

R. cristatus, *Temm.* - - - v. 1, p. 169
R. ignicapillus, *Jenyns.*
R. modestus, *Gould.*

Gen. 20.—TROGLODYTES.—Bill very slender, slightly curved: tail and wings short; tail mostly carried erect: plumage always of grave colours.

T. vulgaris, *Temm.* - - - v. 1, p. 171

Gen. 21.—SAXICOLA.—Bill straight, slender, carinated above, dilated at the base, advancing on the forehead; upper mandible emarginated, slightly bending at the point, furnished with stiff bristles at the base: nostrils basal, lateral, oval, half covered by a membrane: tarsi generally long; outer toe joined at the base to the middle one; hind claw shorter than the toe, and much curved: first quill not half the length of the second, third and fourth longest: coverts and scapulars short.

S. Œnanthe, *Bechst.* - - - v. 1, p. 173
S. Rubetra, *Bechst.* - - - v. 1, p. 175
S. Rubicola, *Bechst.* - - - v. 1, p. 177

Gen. 22.—ACCENTOR.—Bill rather strong, broader than high at the base, sides of the mandibles compressed; the upper one emarginated and notched towards the point: nostrils basal, naked, pierced in a large membrane: feet robust, three toes in front and one behind; the outer toe joined to the middle one at its base; hind claw longest and most hooked: first quill very short, second and third longest.

A. alpinus, *Bechst.*
A. modularis, *Cuvier.* - - - v. 1, p. 179

Gen. 23.—MOTACILLA.—Bill straight, slender, subulate, angulated between the nostrils, notched at the tip; lower mandible compressed at the sides: nostrils basal, lateral, oval, partly concealed by a naked membrane: tarsus twice the length of the middle toe; outer toe joined at the base to the middle one; claw of the hind toe long; front claws very small: tail very long, nearly even at the end: first quill very short, second longest: tertiaries as long as the quills.

M. Yarrellii, *Gould.* - - - v. 1, p. 182
M. alba, *Linn.*
M. Boarula, *Linn.* - - - v. 1, p. 184
M. flava, *Ray.* - - - - v. 1, p. 185
M. neglecta, *Gould.*

Gen. 24.—ANTHUS.—Bill straight, slender, cylindrical, towards the point subulate, and compressed at the middle; upper mandible carinated at the base, bending downwards at the tip and slightly emarginated: nostrils basal, lateral, partly concealed by an arched membrane: outer toe joined to the middle one as far as the first joint; hind claw long and much bent, generally exceeding the toe in length: first quill very short, second a little shorter than the third and fourth, which are longest; tertials as long as the quills.

A. Richardi, *Vieillot.* - - - v. 1, p. 186
A. aquaticus, *Bechst.* - - - v. 1, p. 187
A. pratensis, *Bechst.* - - - v. 1, p. 189
A. arboreus, *Bechst.* - - - v. 1, p. 191

ORDER IV.—GRANIVORES.

BILL strong, short, thick, more or less conic, entire, or slightly emarginated: three toes before and one behind; the anterior toes divided: wings moderate.

Gen. 25.—ALAUDA.—Bill straight, subconic, slightly curved to the tip, which is sharp-pointed: nostrils basal, oval, covered with feathers and bristles: tail somewhat forked: toes divided to their origin; claw of the hind toe very long, almost straight; front claws short, and slightly curved: first quill very short, second a little shorter than the third, which is longest.

A. alpestris, *Linn.*
A. arvensis, *Linn.* - - - v. 1, p. 195
A. arborea, *Linn.* - - - v. 1, p. 198
A. cristata, *Linn.*
A. brachydactyla, *Temm.*

Gen. 26.—PARUS.—Bill short, strong, straight, conical, slightly compressed, sharp-pointed: nostrils basal, round, covered by short bristly feathers directed forwards: tarsi strong; the anterior toes entirely divided; hind claw strongest and most bent: first quill of moderate length, second shorter than the third, fourth or fifth longest.

* First quill feather of moderate length.

P. major, *Linn.* - - - v. 1, p. 202
P. ater, *Linn.* - - - v. 1, p. 204
P. cæruleus, *Linn.* - - - v. 1, p. 205
P. cristatus, *Linn.* - - - v. 1, p. 207
P. palustris, *Linn.* - - - v. 1, p. 209
P. caudatus, *Linn.* - - - v. 1, p. 210

** First quill very short.

P. biarmicus, *Linn.* - - - v. 1, p. 213

Gen. 27.—EMBERIZA.—Bill short, strong, conical, compressed, sharp-pointed; edges of both mandibles bending inwards; upper mandible narrower than the under, and furnished with a hard knob on the palate: nostrils basal, round, partly covered by small feathers: first quill shorter than the second and third, which are longest: tail forked or slightly rounded.

* Claw of the hind toe short and bent.

E. Citrinella, *Linn.* - - - v. 1, p. 216
E. Miliaria, *Linn.* - - - v. 1, p. 218
E. Schœniclus, *Linn.* - - v. 1, p. 220
E. Hortulana, *Linn.* - - v. 1, p. 222
E. Cirlus, *Linn.* - - - v. 1, p. 224

* * Hind claw long, slightly bent.

E. nivalis, *Linn.* - - - v. 1, p. 226-229
E. calcarata, *Temm.*

Gen. 28.—LOXIA.—Bill strong, compressed; both mandibles equally convex, hooked at the tips, and crossing each other: nostrils basal, lateral, round, covered by bristly feathers directed forwards: first quill longest: tail short, forked: tarsi short; anterior toes divided to the base, hind toe longer than the tarsus; claws sharp and bent.

L. Pytiopsittacus, *Bechst.* - - v. 1, p. 231
L. curvirostra, *Linn.* - - - v. 1. p. 233
L. leucoptera, *Gmel.*

Gen. 29.—PYRRHULA.—Bill short, convex, conical, thick, swelled at the sides, and compressed at the tip; upper mandible convex above, advancing on the forehead at the base, bent at the tip, and overhanging the lower one: nostrils basal, lateral, round, generally concealed by hairy feathers directed forwards: tarsus shorter than the middle toe: anterior toes entirely divided: wings short; third and fourth quills equal in length, and longest.

P. Enucleator, *Temm.* - - v. 1, p. 236
P. vulgaris, *Briss.* - - - v. 1, p. 238

Gen. 30.—FRINGILLA.—Bill short, strong, thick at the base, conic, sometimes advancing on the forehead: nostrils basal, round, placed near the forehead, partly hid by bristly feathers directed forwards: tarsus shorter than the middle toe; anterior toes entirely divided: wings short; third or fourth quill longest: tail more or less forked.

* Bill very thick; sides convex.

F. Coccothraustes, *Temm.* - - v. 1, p. 241
F. Chloris, *Temm.* - - v. 1, p. 243
F. domestica, *Linn.* - - - v. 1, p. 245
F. montana, *Linn.* - - - v. 1, p. 248

** Bill short, straight, cylindrical, often conic throughout.

F. Cœlebs, *Linn.* - - - v. 1, p. 249
F. Montifringilla, *Linn.* - - v. 1, p. 251
F. cannabina, *Linn.* - - v. 1, p. 253-255
F. Montium, *Gmel.* - - - v. 1, p. 257
F. Linaria, *Linn.* - - - v. 1, p. 259
F. borealis, *Temm.*

*** Bill conic, straight, long, compressed; tip of both mandibles sharp.

F. Spinus, *Linn.* - - - v. 1, p. 261
* F. Canaria, *Linn.* - - - v. 1, p. 263
F. Carduelis, *Linn.* - - - v. 1, p. 265

ORDER V.—ZYGODACTYLI.

BILL various, more or less arched, often straight and angular: two toes before and two behind; the outer hind toe often reversible.

Gen. 31.—CUCULUS.—Bill as long as the head, compressed, somewhat curved, and slightly hooked at the tip; gape wide: nostrils basal, surrounded by a naked and prominent membrane: tarsi short, feathered a little below the

heel; the outer hind toe reversible: tail long, cuneated; third quill longest.

C. canorus, *Linn.* - - - v. 1, p. 267
C. cinerosus, *Buff.*
C. glandarius, *Linn.*

Gen. 32.—PICUS.—Bill straight, angular, robust, compressed, cuneated at the tip: nostrils basal, oval, concealed by bristly feathers: tongue very long and extensile, tip barbed: two toes before and two behind; rarely with only a single hind toe; the two anterior toes connected at the base, the two posterior toes entirely divided: tail feathers stiff, pointed at the extremity: wings moderate, first quill very short, third or fourth longest.

P. martius, *Linn.* - - - v. 1, p. 274
P. viridis, *Linn.* - - - v. 1, p. 276
P. major, *Linn.* - - - v. 1, p. 278
P. minor, *Linn.* - - - v. 1, p. 280

Gen. 33.—YUNX.—Bill short, straight, somewhat conical, depressed: nostrils basal, partly closed by a membrane: tongue long and extensile: feet with two toes before and two behind; the anterior pair joined at their base; the posterior ones entirely divided: wings moderate; first quill a little shorter than the second, which is longest: tail feathers soft and flexible.

Y. Torquilla, *Linn.* - - - v. 1, p. 282

ORDER VI.—ANISODACTYLI.

BILL slender, sometimes strong, more or less bent, often straight, subulate: three toes before and one behind; the outer toe joined at its base to the middle one, hind toe generally long; claws rather long and bent.

Gen. 34.—SITTA.—Bill straight, conic, rather strong, depressed at the base, tip sharp: nostrils basal, rounded, covered by hairs and small feathers: three toes before and one behind; the outer toe joined at its base to the middle one, hind toe very long, with the claw large and much bent: tail short, nearly even: first quill very short, second shorter than the third and fourth, which are longest.

S. Europæa, *Linn.* - - - v. 1, p. 285

Gen. 35.—CERTHIA.—Bill more or less bent, angulated, compressed, slender, sharp-pointed: nostrils basal, lateral, half closed by an arched membrane: three toes before and one behind; the outer toe joined at its base to the middle one, hind toe strong, and longer than the others: tail feathers stiff, pointed, and bent downwards: first quill very short, fourth longest.

C. familiaris, *Linn.* - - - v. 1, p, 287

Gen. 36.—UPUPA.—Bill very long, slightly curved, slender, triangular, compressed, convex above, sharp-pointed: nostrils basal, lateral, oval: crown furnished with a crest: three toes before and one behind; the outer toe united to the middle one as far as the first joint; claws short, not much hooked; hind one almost straight: tail square, composed of ten feathers: wings large; first quill very short, second and third shorter than the fourth and fifth, which are longest.

U. Epops, *Linn.* - - - v. 1, p. 289

ORDER VII.—ALCYONES.

BILL moderate or long, pointed, almost quadrangular, slightly bent or straight: tarsi very short; three toes before and one behind, the anterior ones united.

Gen. 37.—MEROPS.—Bill longer than the head, slightly curved, triangular at the base, carinated above, sharp-pointed, culmen elevated: nostrils basal, lateral, oval, partly covered by hairs directed forwards: tarsi short; toes three before and one behind; the outer toe joined to the middle one as far as the second joint, the middle to the inner one as far as the first; hind claw small: wings long and pointed; first quill very short, second longest.

M. Apiaster, *Linn.* - - - v. 1, p. 291

Gen. 38.—ALCEDO.—Bill long, straight, rarely depressed, quadrangular, pointed, edges sharp and cutting: nostrils basal, lateral, pierced obliquely, linear, almost closed by a naked membrane: tarsi short; three toes before and one behind; the outer toe joined to the middle one as far as the second joint, the middle toe to the inner one as far as the first; hind toe thick at its base: third quill longest.

A. Ispida, *Linn.* - - - v. 1, p. 293

ORDER VIII.—CHELIDONES.

BILL short, much depressed, wide at its base; upper mandible bent at the point: feet short; three toes before, entirely divided or united at the base by a short membrane; hind toe in some reversible; claws much hooked: wings long.

Gen. 39.—HIRUNDO.—Bill short, triangular, much depressed; upper mandible carinated, bent at the tip; gape extending nearly to the eyes: nostrils basal, oblong, partly covered by a membrane: feet short, toes and claws slender; three toes before, and one behind; outer toe united to the middle one as far as the first joint: tail forked, composed of twelve feathers: wings very long, first quill longest.

H. rustica, *Linn.* - - - v. 1, p. 299
H. urbica, *Linn.* - - - v. 1, p. 305
H. riparia, *Linn.* . - - v. 1, p. 307
H. purpurea, *Wil.*

Gen. 40.—CYPSELUS.—Bill very short, triangular, depressed at the base; upper mandible bent at the point; gape extending beyond the eyes: nostrils longitudinal, placed near the ridge of the bill; the edges raised and furnished with small feathers: tarsi very short; toes four, all directed forwards, entirely divided; claws short and thick: wings very long; first quill a little shorter than the second: tail forked, composed of ten feathers.

C. alpinus, *Temm.*
C. murarius, *Temm.* - - - v. 1, p. 308

Gen. 41.—CAPRIMULGUS.—Bill very short, flexible, much depressed at the base, slightly bent at the point, and furnished at the margins with strong hairs directed forwards: nostrils basal, large, partly closed by a membrane, and partly covered by the feathers of the forehead: tarsi very short; three toes before, and one behind; the anterior toes connected by a membrane as far as the first joint; hind toe reversible; claws short, except that of the middle toe, which is long and pectinated on the inner edge: wings long; first quill shorter than the second, which is longest: tail rounded or forked, composed of ten feathers.

C. Europæus, *Linn.* - - - v. 1, p. 311

ORDER IX.—COLUMBÆ.

BILL moderate, compressed; base of the upper mandible covered with skin in which the nostrils are placed, tip more or less curved: three toes before, entirely divided; one toe behind.

Gen. 42.—COLUMBA.—Bill straight, compressed, convex, bent at the tip; base of the upper mandible covered with a soft skin more or less inflated, in which the nostrils are situate: feet often red; hind toe articulated on the same plane with the front ones: wings moderate or short; first quill a little shorter than the second, which is longest.

C. Palumbus, *Linn* - - - v. 1, p. 316
C. Œnas, *Linn.*
C. Livia, *Briss.* - - - v. 1, p. 318
C. Turtur, *Linn.* - - - v. 1, p. 321

ORDER X.—GALLINÆ.

BILL short, convex, often furnished with a cere at the base; upper mandible arched, curved from its base or only at the point: nostrils lateral, covered with an arched membrane naked or furnished with feathers: tarsus long; three toes before, generally united by a membrane; hind toe sometimes wanting; when present, articulated high on the tarsus.

Gen. 43.—MELEAGRIS.—Bill short, thick, convex, furnished at the base with an elongated, pendulous, fleshy appendage: head and neck naked; throat with a pendulous carunculated wattle: tarsi of the male armed with spurs: tail broad, expansile, consisting of from fourteen to eighteen feathers.

* M. Gallopavo, *Linn.* - - - v. 1, p. 330

Gen. 44.—PAVO.—Bill naked at the base, convex above, deflected at the tip: cheeks partially naked; head small, and crested: tarsi of the male furnished with spurs: tail of eighteen feathers; upper tail coverts longer than the tail, broad and expansile, adorned with rich ocellated spots.

* P. cristatus, *Linn.* - - - v. 1, p. 333

Gen. 45.—GALLUS.—Bill smooth at the base, thick, curved: nostrils covered by an arched membrane: head generally furnished with an erect fleshy crest; throat with fleshy wattles on each side of the lower mandible: ears naked: tarsi with strong spurs; anterior toes united by a membrane as far as the first joint: tail of fourteen feathers, compressed, more or less arched, ascending.

* G. domesticus, *Briss.* - - v. 1, p. 325

Gen. 46.—PHASIANUS.—Bill short and strong, naked at the base; upper mandible very convex, tip deflected: nostrils basal, lateral, covered by an arched membrane: cheeks naked, adorned with scarlet papillæ: three toes before, united by a membrane as far as the first joint; one toe behind: tarsus of the male furnished with a spur: wings short; fourth and fifth quills longest: tail very long, cuneated, composed of eighteen feathers.

* P. Colchicus, *Linn.* - - - v. 1, p. 339

Gen. 47.—NUMIDA.—Bill strong, convex above, covered at the base with a warty membrane, in which the nostrils are placed: head naked; crown with a callous horny protuberance; beneath the cheeks pendulous carunculated wattles: tarsi without spurs: anterior toes united by a membrane as far as the first joint: tail short, pointing downwards, of fourteen or sixteen feathers.

* N. Meleagris, *Briss.* - - - v. 1, p. 337

Gen. 48.—TETRAO.—Bill short, strong, convex above, curved from the base to the tip: nostrils basal, lateral, partly covered by an arched membrane, concealed by small closely set feathers: eyebrows naked, adorned with scarlet papillæ: tarsi feathered to the toes, which are also frequently feathered; three toes before, united as far as the first joint, one toe behind; the margins of all sometimes pectinated: wings short and rounded; first quill short, second shorter

than the third and fourth, which are longest: tail of sixteen or eighteen feathers.

T. Urogallus, *Linn.* - - - v. 1, p. 344
T. Tetrix, *Linn.* - - - v. 1, p. 347
T. Scoticus, *Lath.* - - - v. 1, p. 350
T. Lagopus, *Linn.* - - - v. 1, p. 352

Gen. 49.—PERDIX.—Bill short, compressed, strong, base naked, convex above, curved towards the tip: nostrils basal, lateral, half closed by an arched naked membrane: tarsi naked; three toes before, and one behind; the front toes united as far as the first joint by a membrane: wings short; fourth and fifth quills generally longest: tail short, of fourteen to eighteen feathers.

* Tarsi furnished with a tubercle, or entirely smooth.

* P. rubra, *Briss.* - - - v. 1, p. 354
P. cinerea, *Lath.* - - - v. 1, p. 357

** Tail very short, hid by the feathers of the rump: first quill of the wing longest.

P. Coturnix, *Lath.* - - - v. 1, p. 360

Gen. 50.—HEMIPODIUS.—Bill moderate, straight, slender, much compressed, curved towards the point: nostrils lateral, linear, partly closed by a naked membrane: tarsi long: three toes before, entirely divided; no hind toe: tail small, concealed by the upper coverts: wings moderate; first quill longest.

H. tachydromus, *Temm.*

ORDER XI.—ALECTORIDES.

BILL shorter than the head, or of the same length, strong, hard; upper mandible curved, convex, bent at the point: tarsi long, slender; three toes before, one behind; the hind toe articulated above the plane of the front toes.

Gen. 51.—GLAREOLA.—Bill short, convex, compressed towards the point; upper mandible curved for about half its length: nostrils basal, lateral, placed obliquely: legs bare of feathers a little above the heel; tarsi long and slender; claws long and subulate: wings very long; first quill longest.

G. torquata, *Meyer*. - - - v. 1, p. 363

ORDER XII.—CURSORES.

Bill moderate or short: legs naked above the heel; tarsi long; toes two or three, directed forwards.

Gen. 52.—OTIS.—Bill as long as the head, or shorter, straight, conical, compressed, or slightly depressed at the base; upper mandible arched towards the tip: nostrils oval, open, placed a little from the base: legs naked above the heel; tarsi long; toes three, directed forwards, short, united at the base, and edged by a membrane: wings of moderate length; third quill longest.

* Bill compressed at the base.

O. Tarda, *Linn.* - - - v. 1, p. 367
O. Tetrax, *Linn.* - - - v. 1, p. 371

Gen. 53.—CURSORIUS.—Bill shorter than the head, depressed at the base, slightly arched and bent downwards at the tip, pointed: nostrils oval, covered above by a small protuberance: tarsi long, slender; toes three, very short, almost entirely divided; inner toe half the length of the middle one; claws very small: wings moderate; second quill longest.

C. isabellinus, *Meyer*. - - v. 1, p. 373

ORDER XIII.—GRALLATORES.

Bill various, generally straight, long and conical, compressed, rarely depressed: legs generally

naked above the heel; tarsi slender; toes three or four, long, more or less connected by a membrane at the base; hind toe articulated on the same plane with the front ones, or more elevated.

Division 1.—Feet with three toes.

Gen. 54.—ŒDICNEMUS.—Bill longer than the head, straight, strong, slightly depressed at the base, compressed towards the tip; culmen raised near the point; under mandible angulated beneath: nostrils placed in the middle of the bill, longitudinally slit, and extending nearly as far as the horny portion, open in front, pervious: tarsi long, slender; toes three, directed forwards, united by a membrane as far as the second joint: wings moderate; second quill longest: tail graduated.

Œ. crepitans, *Temm.* - - - v. 2, p. 1

Gen. 55.—CALIDRIS.—Bill moderate, straight, slender, flexible throughout, compressed at the base, depressed at the tip: nasal groove extending nearly the whole length; nostrils basal, lateral, longitudinally slit: tarsi slender; toes three, directed forwards, almost entirely divided: wings moderate; first quill longest.

C. arenaria, *Illiger.* - - - v. 2, p. 4

Gen. 56.—HIMANTOPUS.—Bill very long, slender, cylindrical, depressed at the base, compressed at the tip; both mandibles channelled laterally for half their length: nostrils lateral, linear, elongated: legs and tarsi very long, slender; nearly the whole of the tibia naked; toes three, directed forwards; middle toe united to the outer one by a broad membrane, and to the inner toe by a very narrow membrane; claws very small, flat: wings very long; first quill longest.

H. melanopterus, *Meyer.* - - v. 2, p. 6

Gen. 57.—HÆMATOPUS.—Bill long, robust, straight, point very much compressed: nostrils lateral, longitudinally slit; nasal groove extending half the length of the bill: legs naked above the heel; tarsi strong; toes three, bordered by a narrow membrane; the middle toe united at its base to the inner one, and to the outer toe as far as the first joint: wings moderate; first quill longest.

H. ostralegus, *Linn.* - - - v. 2, p. 9

Gen. 58.—CHARADRIUS.—Bill shorter than the head, slender, straight, somewhat enlarged towards the tip, compressed: nasal groove extending two-thirds of its length, covered by a large membrane; nostrils basal, slit in the middle of the membrane; tarsi long or of moderate length; toes three; outer one connected to the middle toe by a second short membrane; inner toe divided: wings moderate; quill longest: tail slightly rounded or square.

C. pluvialis, *Linn.* - - - v. 2, p. 12
C. Morinellus, *Linn.* - - - v. 2, p. 14
C. Hiaticula, *Linn.* - - - v. 2, p. 16
C. Cantianus, *Lath.*
C. minor, *Meyer.*

Division 2.—Feet with four toes.

Gen. 59.—VANELLUS.—Bill short, slender, straight, compressed; both mandibles swelled towards the extremity: nasal groove large, covered by a membrane; nostrils linear, slit in the membrane: tarsi slender; three toes before and one behind; middle toe united to the outer one by a short membrane; hind toe elevated, very small, or rudimentary: wings round or pointed; first, or fourth and fifth quills longest.

* First quill feather longest.

V. melanogaster, *Bechst.* - - v. 2, p. 19

** Fourth and fifth quill feathers longest.

V. cristatus, *Meyer.* - - - v. 2, p. 21

Gen. 60.—STREPSILAS.—Bill moderate, strong, straight, forming an elongated cone, tapering gradually to the point, which is hard and rather blunt; ridge slightly depressed: nostrils basal, lateral, pervious, partly covered by a membrane: legs naked a little above the heel; tarsi moderate; toes three before and one behind; front toes connected at the base by a short membrane; hind toe articulated high up the tarsus, and only touching the ground at the tip: wings long, acuminated; first quill longest.

S. collaris, *Temm.* - - - v. 2, p. 25-27

Gen. 61.—GRUS.—Bill a little longer than the head, strong, straight, compressed and pointed; base of the upper mandible deeply channelled; culmen raised: nostrils pervious, placed longitudinally in a groove about the middle of the bill, closed behind by a membrane; head more or less naked: legs long, strong; a considerable part of the tibia naked; three toes in front; the middle and outer one united by a membrane; hind toe articulated high up the tarsus: wings moderate; third quill longest.

G. cinerea, *Bechst.* - - - v. 2, p. 29

Gen. 62.—CICONIA.—Bill longer than the head, straight, strong, cylindrical, forming a lengthened cone; upper mandible convex above; lower mandible inclining a little upwards at the tip: nostrils nearly basal, longitudinally placed in the horny substance of the bill: eyes surrounded by a naked skin: a considerable part of the tibia naked; tarsi long; three toes before, united by a membrane, as far as the second joint; hind toe articulated on the same plane with the front toes; claws short, depressed, not pectinated: wings rather long; third, fourth, and fifth quills longest.

C. alba, *Belon.* - - - - v. 2, p. 32

C. nigra, *Belon.*

Gen. 63.—ARDEA.—Bill as long as, or a little longer than the head, strong, straight, compressed, forming an

elongated cone; upper mandible channelled for about two-thirds of its length; ridge rounded: nostrils lateral, basal, placed in the groove, and half closed by a membrane: orbits and lore naked: legs long and slender; tibia more or less naked; three toes before, the two outer united by a short membrane; one toe behind, inclined inwards; middle claw with the inner margin pectinated: wings ample; second and third quills longest.

* Bill longer than the head, wider than high at the base; upper mandible nearly straight: a considerable portion of the tibia naked.

A. cinerea, *Lath.* - - - v. 2, p. 36
A. purpurea, *Linn.* - - - v. 2, p. 40
A. Garzetta, *Linn.* - - - v. 2, p. 43
A. æquinoctialis, *Mont.* - - v. 2, p. 45
A. alba, *Linn.* - - - - v. 2, p. 46

* * Bill as long as, or longer than the head, higher than broad at the base, much compressed; upper mandible slightly curved: not much of the tibia naked: neck thick and rather short; feathers of the fore part loose and elongated; the hind part furnished only with down.

A. stellaris, *Linn.* - - - v. 2, p. 47
A. lentiginosa, *Mont.*
A. Ralloides, *Scop.* - - - v. 2, p. 50
A. minuta, *Linn.* - - - v. 2, p. 52-54

Gen. 64.—NYCTICORAX.—Bill a little longer than the head, higher than broad, much compressed; upper mandible slightly curved: occiput furnished with two or three very long subulate feathers.

N. Ardeola, *Temm.* - - - v. 2, p. 55

Gen. 65.—RECURVIROSTRA.—Bill very long, slender, depressed throughout; point flexible, much curved upwards; upper mandible grooved above; under mandible grooved along the sides: nostrils long, linear, placed on the upper part of the beak: a considerable portion of the tibia naked; tarsi long, slender; three toes before; hind toe very small, articulated high on the tarsus; anterior toes united by a membrane as far as the second joint: wings acuminated; first quill longest.

R. Avocetta, *Linn.* - - - v. 2, p. 58

Gen. 66.—PLATALEA.—Bill very long, robust, much depressed, dilated and rounded at the extremity in the form of a spoon; upper mandible channelled, transversely furrowed at the base: nostrils dorsal, near together, oblong, open, bordered by a membrane; face and head more or less naked: tarsi long and strong; three toes in front, united as far as the second joint by a deeply cut membrane; hind toe long, resting on the ground: wings rather large; second quill longest.

P. Leucorodia, *Linn.* - - - v. 2, p. 61

Gen. 67.—IBIS.—Bill long, slender, arcuate, broad at the base, tip depressed, obtuse and rounded; upper mandible deeply grooved throughout its whole length: nostrils nearly basal, linear, placed in the groove: face and throat more or less naked: tarsi long and slender; lower part of the tibia naked; three toes before, one behind; anterior toes united by a membrane as far as the first joint; hind toe long, resting on the ground: wings moderate; second and third quills longest.

I. Falcinellus, *Temm.* - - - v. 2, p. 65

Gen. 68.—NUMENIUS.—Bill long, slender, arcuate, compressed, tip hard, rounded, rather obtuse; upper mandible projecting over the lower one, and grooved along three-fourths of its length: nostrils basal, linear, placed in the groove: face and lore covered with feathers: tarsi long; tibia partly naked; three toes before, one behind; anterior toes connected by a membrane as far as the first joint; hind toe articulated high on the tarsus, and touching the ground: wings moderate; first quill longest.

N. arquata, *Lath,* - - - v. 2, p. 68
N. Phæopus, *Lath.* - - - v. 2, p. 70

Gen. 69.—TRINGA.—Bill rather long, straight, or slightly bent, soft and flexible throughout, compressed at the base, dilated and obtuse at the extremity; both mandibles fur-

rowed nearly to the tip: nostrils lateral, conical, placed in the membrane of the groove: lower part of the tibia naked; tarsi slender; three toes before, one behind; anterior toes entirely divided, or the middle one joined by a membrane to the outer toe as far as the first joint; hind toe articulated on the tarsus: wings moderate; first quill longest.

* Anterior toes entirely divided.

T. subarquata, *Temm.* - - v. 2, p. 73
T. pectoralis, *Bonap.*
T. variabilis, *Meyer* - - - v. 2, p. 75-77
T. Schinzii, *Bonap.*
T. platyrhyncha, *Temm.*
T. maritima, *Brunn.* - - - v. 2, p. 79-81
T. Temminckii, *Leisler.*
T. minuta, *Leisl.* - - - v. 2, p. 83
T. rufescens, *Vieill.*
T. cinerea, *Linn.* - - - v. 2, p. 84

* * Middle and outer toes united by a membrane as far as the first joint: neck in the male furnished with an ornamental ruff during the breeding season.

T. pugnax, *Linn.* - - - v. 2, p. 87-91

Gen. 70.—TOTANUS.—Bill moderate or long, generally straight, rarely inclining upwards, compressed, soft at the base, hard and sharp at the point; upper mandible grooved for half its length, slightly bending over the lower one at the tip: nostrils lateral, linear, placed in the groove: legs long, slender, naked above the heel; three toes before, one behind; anterior toes, or the outer ones only united by a membrane, which sometimes extends as far as the second joint: wings moderate; first quill longest.

* Bill straight; point of the upper mandible bending over the lower one: the three anterior toes, or the outer ones only, united.

T. fuscus, *Leisl.* - - - v. 2, p. 94
T. Calidris, *Bechst.* - - - v. 2, p. 96
T. Ochropus, *Temm.* - - - v. 2, p. 99
T. Glareola, *Temm.* - - - v. 2, p. 101
T. Macularia, *Temm.*
T. Hypoleucos, *Temm.* - v. 2, p. 103-106

* * Bill strong, a little bent upwards; mandibles almost equal at the point: middle and outer toes united.

T. Glottis, *Bechst.* - - - v. 2, p. 108-110

Gen. 71.—LIMOSA.—Bill very long, depressed, more or less bent upwards, soft and flexible throughout, flattened towards the point; upper mandible grooved for nearly its whole length, tip obtuse, dilated: nostrils lateral, linear, placed in the membrane of the groove: legs long and slender, naked above the heel; three toes before, one behind; middle and outer toes united by a membrane as far as the first joint: wings moderate; first quill longest.

L. melanura, *Leisl.* - - - v. 2, p. 113
L. rufa, *Briss.* - - - v. 2, p. 115

Gen. 72.—SCOLOPAX.—Bill long, straight, slender, compressed, soft, the tip obtuse and dilated; both mandibles grooved for half their length; upper one a little longer than the lower: nostrils lateral, basal, linear, covered by a membrane: legs moderate, slender, occasionally naked for a short space above the heel; three toes before and one behind; the anterior toes almost entirely divided: wings moderate; first quill longest.

* Tibia feathered to the heel; anterior toes entirely divided.

S. Rusticola, *Linn.* - - - v. 2, p. 118

* * Lower part of the tibia naked.

S. major, *Gmel.* - - - v. 2, p. 124
S. Sabina, *Vigors.* - - - v. 2, p. 126
S. Gallinago, *Linn.* - - - v. 2, p. 128
S. Gallinula, *Linn.* - - - v. 2, p. 132

* * * Outer and middle toes united by a membrane as far as the first joint.

S. Noveboracensis, *Gmel.* - - v. 2, p. 134

Gen. 73.—RALLUS.—Bill longer than the head, rather slender, slightly arched or straight, compressed at the base, cylindrical at the tip; upper mandible grooved for two-thirds of its length: nostrils lateral, linear, placed in the groove, partly covered by a membrane: lower part of the tibia naked; tarsi long and robust; toes long and slender, three before and one behind; anterior toes entirely divided; hind toe

articulated on the tarsus: wings short, rounded; third and fourth quills longest.

R. aquaticus, *Linn.* - - - v. 2, p. 137

Gen. 74.—GALLINULA.—Bill shorter than the head, compressed, conic, culmen advancing on the forehead, and occasionally forming a naked disk; mandibles of equal length, upper one slightly curved: nostrils lateral, linear, placed in the middle of the bill, half concealed by the membrane which covers the nasal cavity: tarsi long; tibia naked for a short space above the heel; three toes before, one behind; anterior toes very long, entirely divided, bordered by a narrow membrane: wings moderate; second and third quill longest.

* Ridge of the upper mandible advancing between the feathers of the forehead, but not forming a naked disk.

G. Crex, *Lath.* - - - v. 2, p. 141
G. Porzana, *Lath.* - - - v. 2, p. 143
G. pusilla, *Bechst.* - - - v. 2, p. 145
G. Baillonii, *Vieill.*

* * Ridge of the upper mandible expanding at the base on the forehead, forming a naked disk.

G. chloropus, *Lath.* - - - v. 2, p. 148

ORDER XIV.—PINNATIPEDES.

BILL moderate, straight; upper mandible a little bent at the point: tarsi slender or compressed; three toes before and one behind, furnished with a broad scalloped membrane; hind toe articulated on the inner surface of the tarsus.

Gen. 75.—FULICA.—Bill shorter than the head, strong, conic, straight, compressed, higher than broad, thick at the base, ridge advancing on the forehead, and spreading into a naked disk; tips of the mandibles of equal length: nostrils

lateral, medial, longitudinally cleft, half covered by a membrane: tarsi long and slender; tibia naked for a short space above the heel; anterior toes very long, united at the base, and bordered by a scalloped membrane: wings moderate; second and third quills longest.

F. atra, *Linn.* - - - - v. 2, p. 152

Gen. 76.—PHALAROPUS.—Bill as long as the head, straight, slender, depressed at the base; both mandibles grooved throughout their whole length; upper mandible slightly curved at the point: nostrils basal, lateral, oval, prominent, surrounded by a membrane: tarsi moderate, slender, compressed; three toes before, one behind; anterior toes united as far as the first joint, and bordered by a scalloped membrane serrated at the edges; hind toe without a membrane, and articulated on the inner side of the tarsus: wings moderate; first and second quills longest.

* Bill slender, depressed only at the base, and sharp at the point.

P. hyperboreus, *Lath.* - - - v. 2, p. 137

** Bill depressed throughout its whole length.

P. platyrhinchus, *Temm.* - v. 2, p. 159-160

Gen. 77.—PODICEPS.—Bill moderate, straight, hard, forming a lengthened cone, sharp-pointed; upper mandible slightly turned down at the tip: nostrils lateral, linear, closed behind by a membrane: lore naked: tarsi rather short, much compressed; three toes before, one behind; anterior toes much depressed, united at the base, and furnished with a wide scalloped membrane; hind toe compressed and lobated; claws large, much depressed: wings short; the three first quills nearly equal in length, and longest; no tail.

P. cristatus, *Lath* - - v. 2, p. 164-166
P. rubricollis, *Lath.* - - - v. 2, p. 167
P. cornutus, *Lath.* - - v. 2, p. 169-171
P. auritus, *Lath.*
P. minor, *Lath.* - - - v. 2, p. 173

ORDER XV.—PALMIPEDES.

BILL various: tarsi short, often placed far backwards; toes generally four; the anterior ones palmated, or semi-palmated; occasionally all the four toes united; hind toe sometimes wanting.

Gen. 78.—STERNA.—Bill as long as, or longer than the head, nearly straight, compressed, tapering, slender, sharp-pointed; mandibles of equal length, upper one slightly bending at the tip: nostrils near the middle of the bill, oblong, linear, pervious: tarsi short; tibia naked for a short space above the heel; toes four, the three anterior ones united by membranes deeply concave in front, or semi-palmated; hind toe free: wings very long, acuminated; first quill longest: tail generally forked.

S. Caspia, *Pall.*
S. Cantiaca, *Gmel.* - - - v. 2, p. 177
S. Dougallii, *Mont.* - - - v. 2, p. 179
S. Hirundo, *Linn.* - - - v. 2, p. 181
S. Anglica, *Mont.* - - - v. 2, p. 183
S. stolida, *Linn.*
S. leucoptera, *Temm.*
S. nigra, *Linn.* - - - v. 2, p. 184
S. minuta, *Linn.* - - - v. 2, p. 186

Gen. 79.—LARUS.—Bill moderate, strong, compressed, cultrated, bending downwards at the tip; lower mandible with a prominent angle beneath: nostrils lateral, linear, medial, longitudinal, pervious: tibia naked above the heel; tarsi moderate; three toes before, entirely palmated; hind toe free, short, articulated high on the tarsus: wings long; second quill longest.

L. glaucus, *Brunn.* - - - v. 2, p. 191-193
L. Islandicus, *Edmondston.*
L. argentatus, *Brunn.* - - - v. 2, p. 194

L. marinus, *Linn.* - - - v. 2, p. 196-198
L. fuscus, *Linn.* - - - v. 2, p. 199
L. eburneus, *Linn.* - - - v. 2, p. 201
L. canus, *Linn.* - - - v. 2, p. 203
L. tridactylus, *Lath.* - - - v. 2, p. 205-207
L. Atricilla, *Linn.*
L. ridibundus, *Linn.* - - - v. 2, p. 209-212
L. Sabini, *Sabine.*
L. minutus, *Pall.* - - - v. 2, p. 213

Gen. 80.—LESTRIS.—Bill moderate, strong, hard, rounded above, compressed and bent towards the tip; the base of the upper mandible covered with a cere; under mandible with a prominent angle beneath: nostrils placed far forwards, diagonal, straight, closed behind, pervious: tibia naked above the heel; tarsi rather long: hind toe very small, the three anterior entirely palmated; claws large and much hooked: tail slightly rounded; the two middle feathers longest: wings moderate; first quill longest.

L. Cataractes, *Temm.* - - - v. 2, p. 216
L. pomarinus, *Temm.*
L. Richardsonii, *Swainson.* - - v. 2, p. 219-221
L. parasiticus, *Temm.*

Gen. 81.—PROCELLARIA.—Bill robust, much hooked, suddenly inflated towards the tip; under mandible truncated at the tip, with a prominent angle beneath: nostrils contained in a tube extending along the ridge of the bill: tarsi moderate, compressed; three toes before, entirely palmated; a sharp simple claw in place of the hind toe: tail rounded: wings long; first quill longest.

P. glacialis, *Linn.* - - - v. 2, p. 225

Gen. 82.—PUFFINUS.—Bill longer than the head, slender, compressed at the point; lower mandible deflected at the tip: nostrils in a double tube extending along the upper surface of the bill: tarsi moderate, compressed; toes three in front, rather long, entirely webbed; hind toe rudimentary: wings long, acuminated; first quill feather longest.

P. major, *Faber*.
P. Anglorum, *Temm.* - - - v. 2, p. 227

Gen. 83.—THALASSIDROMA.—Bill shorter than the head, slender, much compressed at the point; lower mandible pointed and bent at the tip, following the curvature of the upper: nostrils extending half the length of the bill, contained in one tube, showing two distinct orifices in front: tarsi very long, slender: tail square or slightly forked.

T. Bulwerii, *Jardine* and *Selby*.
T. Leachii, *Vig.* - - - v. 2, p. 230
T. Wilsoni, *Bonap.*
T. pelagica, *Vig.* - - - v. 2, p. 232

Gen. 84.—ANSER.—Bill as long as, or shorter than the head, conical, elevated at the base, and covered with a cere or skin; upper mandible deflected at the tip; lower one flat, straight, narrower and shorter: nostrils lateral, placed towards the middle of the bill: legs in the equilibrium; tarsi slightly elongated; hind toe free: wings tuberculated, or spurred.

A. ferus, *Steph.* - - - v. 2, p. 236-238
A. Segetum, *Steph.* - - - v. 2, p. 245
A. brachyrhynchus, *Baill.*
A. Albifrons, *Steph.* - - - v. 2, p. 249
A. Leucopsis, *Bechst.* - - - v. 2, p. 251
A. Bernicla, *Temm.* - - - v. 2, p. 254
A. ruficollis, *Pall.* - - - v. 2, p. 256
* A. Canadensis, *Flem.* - - - v. 2, p. 258
* A. Ægyptiacus, *Meyer.* - - v. 2, p. 262
A. Gambensis, *Flem.* - - - v. 2, p. 264
* A. Guineensis, *Briss.* - - - v. 2, p. 266

Gen. 85.—CYGNUS.—Bill of equal breadth throughout, higher than broad at the base, depressed at the point; upper mandible deflected at the tip; lower one flat: nostrils oblong, lateral, medial: neck very long: legs out of the equilibrium; tarsi short; hind toe small and free.

C. ferus, *Ray.* - - - - v. 2, p. 268
C. Bewickii, *Yarrell.* - - - v. 2, p. 273

* C. Olor, *Steph.* - - - v. 2, p. 275
C. immutabilis, *Yarr.*

Gen. 86.—ANAS.—Bill depressed, broad towards the tip; the edges of both mandibles furnished with pectinated lamellæ: nostrils small, oval, placed near the base: legs short, and feathered to the heel; three toes before, one behind, the latter free: wings moderate; second quill generally longest.

* Hind toe without a membrane.

A. rutila, *Pallas.* - - - v. 2, p. 279
A. Tadorna, *Linn.* - - - v. 2, p. 281
* A. moschata, *Linn.* - - - v. 2, p. 285
A. Boschas, *Linn.* - - - v. 2, p. 288-296
A. Strepera, *Linn.* - - - v. 2, p. 300
A. acuta, *Linn.* - - - v. 2, p. 302
A. Penelope, *Linn.* - - - v. 2, p. 305
A. Americana, *Wils.*
A. glocitans, *Pall.* - - - v. 2, p. 308
A. Querquedula, *Linn.* - - v. 2, p. 311
A. Crecca, *Linn.* - - - v. 2, p. 313
A. Clypeata, *Linn.* - - - v. 2, p. 316

** Hind toe with a lobated membrane.

A. mollissima, *Linn.* - - - v. 2, p. 319
A. spectabilis, *Linn.* - - - v. 2, p. 324
A. perspicillata, *Linn.*
A. fusca, *Linn.* - - - v. 2, p. 327
A. nigra, *Linn.* - - - v. 2, p. 329
A. rufina, *Pall.*
A. Marila, *Linn.* - - - v. 2, p. 332
A. ferina, *Linn.* - - - v. 2, p. 334
A. leucophthalmos, *Bechst.* - - v. 2, p. 337
A. Fuligula, *Linn.* - - - v. 2, p. 339
A. dispar, *Gmel.*
A. histrionica, *Linn.* - - - v. 2, p. 341
A. Clangula, *Linn.* - - - v. 2, p. 343
A. glacialis, *Linn.* - - - v. 2, p. 345

Gen. 87.—MERGUS.—Bill as long as, or longer than the head, straight, slender, forming an elongated and almost a cylindrical cone; upper mandible tapering towards the tip, which is furnished with a strong hooked nail; edges of both mandibles set with sharp teeth directed backwards: nostrils

lateral, oblong-oval, pervious, placed towards the middle of the bill: legs short, placed rather backwards; hind toe with a lobated membrane: wings moderate; first and second quills nearly equal.

M. Merganser, *Linn.* - - - v. 2, p. 349-352
M. Serrator, *Linn.* - - - v. 2, p. 354
M. cucullatus, *Linn.*
M. albellus, *Linn.* - - - v. 2, p. 356-358

Gen. 88.—CARBO.—Bill generally a little longer than the head, straight, compressed, culmen rounded; upper mandible very much hooked at the point; face and throat naked: nostrils basal, linear, concealed: tarsi strong and short, placed far backwards: toes four, united by a membrane; claw of the middle toe serrated on the inner edge: wings moderate; second quill longest: tail feathers stiff and rigid.

C. Cormoranus, *Meyer.* - v. 2, p. 360-363-368
C. cristatus, *Temm.* - - - v. 2, p. 369

Gen. 89.—SULA.—Bill long, robust, forming an elongated cone thick at the base, compressed towards the tip, which is slightly curved; gape extending beyond the eyes; edges of the mandibles serrated; face and throat naked: nostrils basal, linear, concealed: tarsi short and strong, placed far backwards; toes four, united by a membrane; middle claw with the inner edge denticulated: wings long; first quill longest, or equal to the second; tail cuneiform, composed of twelve feathers.

S. Bassana, *Briss.* - - - v. 2, p. 372

Gen. 90.—COLYMBUS.—Bill as long as the head, strong, straight, slightly compressed, sharp-pointed; upper mandible longer than the lower; edges of both curving inwards: nostrils basal, lateral, linear, and partly closed by a membrane: tarsi much compressed, placed very far backwards; three toes in front, very long; hind toe short, lobated; claws depressed: wings short; first quill longest: tail very short, rounded.

C. glacialis, *Linn.* - - - v. 2, p. 379

C. arcticus, *Linn.* - - - v. 2, p. 381-383
C. septentrionalis, *Linn.* - - v. 2, p. 385-387

Gen. 91.—URIA.—Bill moderate, strong, straight, pointed, compressed; upper mandible slightly curved towards the point: nostrils basal, lateral, linear, pervious, placed longitudinally, and partly closed by a membrane covered with feathers: legs placed far backwards, tarsi short; three toes in front, none behind: wings short; first quill longest: tail short.

U. Troile, *Lath.* - - - v. 2, p. 390-392
U. Grylle, *Lath.* - - - v. 2, p. 394

Gen. 92.—MERGULUS.—Bill shorter than the head, thick, convex, conical, slightly curved, covered at the base with feathers; both mandibles notched at the tip: nostrils basal, lateral, round, partly concealed by a plumose membrane: wings rather short; first and second quills longest: tail short.

M. Alle, *Selby.* - - - v. 2, p. 396

Gen. 93.—MORMON.—Bill shorter than the head, higher than long, much compressed anteriorly; both mandibles arched, transversely furrowed, and notched at the tip; culmen more elevated than the crown of the head: nostrils basal, marginal, linear, almost entirely closed by a large naked membrane: legs short, placed far backwards; three toes in front, no hind toe; claws curved: wings short; first and second quills longest: tail short.

M. Fratercula, *Temm.* - - - v. 2, p. 398

Gen. 94.—ALCA.—Bill straight, large, compressed, much curved towards the point; both mandibles with four transverse grooves, and covered with feathers at the basal portion: nostrils lateral, marginal, linear, placed near the middle of the bill, almost entirely closed by a membrane covered with feathers: legs short, abdominal; three toes in front, no hind toe; claws slightly curved: wings short: tail pointed.

A. Torda, *Linn.* - - - v. 2, p. 402-404
A. impennis, *Linn* - - - v. 2, p. 405

BRITISH BIRDS.

Birds of Prey.

RAPACIOUS birds, or those which subsist chiefly on flesh, are much less numerous than rapacious quadrupeds; and it seems wisely provided by Nature, that their powers should be equally confined and limited with their numbers; for if to the rapid flight and penetrating eye of the Eagle, were joined the strength and voracious appetite of the Lion, the Tiger, or the Glutton, no artifice could evade the one, and no speed could escape the other.

The characters of birds of the ravenous kind are particularly striking, and easily to be distinguished; the formidable talons, the large head, the strong and crooked beak, indicate their ability for rapine and carnage; their dispositions are fierce, and their nature is untractable; cruel and unsociable, they avoid the haunts of civilization, and retire to the most gloomy and wild recesses, where they can enjoy, in solitude, the fruits of their depredations. The ferocity of their nature shews itself even towards their young, which they drive from the nest at a very early period. The difficulty of procuring a constant supply of food for them probably overcomes the feelings of parental affection, and they

have been known to destroy them in the fury of disappointed hunger. Different from almost all other kinds, the female of birds of prey is larger and stronger than the male: naturalists have puzzled themselves to assign the reason of this extraordinary property, but the final cause at least is obvious,—as the care of rearing the young is chiefly intrusted to the female, Nature would seem to have furnished her with more ample powers to provide for her own wants, and those of her offspring.

This formidable tribe constitutes the first Order of birds. The British genera belonging to it consist of three, viz., the Vulture, the Falcon, and the Owl. We shall begin with the former.

ALPINE VULTURE.

IMMATURE.

(*Cathartes percnopterus*, Temminck.—*Catharte alimoche*, Temm.)

THIS species is described as building in high rocks about Arragon, in Spain, where it is called "*Boleta*." It is sometimes driven by tempest from Persia to Astrachan, in the Russian dominions, as some have been shot thereabouts.

A pair of these birds, supposed to be male and female, visited this country in the long scorching hot summer of 1826. The present subject was shot by a servant of the Rev. John Matthew, of Kilve, near Bridgewater. It had recently gorged itself with a putrid lamb, which was supposed to be the cause of its allowing itself to be approached within shot.* The stench from it was intolerable.

These birds, as far as can be known, are the first that ever appeared at large in Britain. The stuffed specimen was lent to the late Sir J. Trevelyan, Bart., of Nettlecombe, Somersetshire, who obligingly sent a drawing of it for the use of this work.

The measurements of the bird, taken by Mr. Matthew, jun., were also sent to Sir John, as follows:—From the point of the bill to the end of the tail, two feet three inches; from tip to tip of the wings, about five feet six or eight inches and a half. The plumage is composed of deepish brown and buff: the shoulders, lesser coverts, and breast, brown, more or less edged and tipped with buff: the back, thighs, and tail are wholly of the latter colour: the primaries are very dark brown, as is also the ruff about the neck: the bill is dusky, and hooked at the tip, with a few hairy looking feathers on the brow and chin: the back part of the head somewhat the same, but forming a more tufted or crested appearance: the head and upper part of the neck are quite bare of feathers, and the skin is lightish blue: the legs are also of that colour; claws black.

* Its associate was very wild: it was eagerly pursued, but could not be approached. At length it flew away over the Quantox hills, and thus took its final departure.

These birds live wholly on dead or putrid animals, which they can scent at a very great distance. With the ruff they occasionally quite cover their heads; but whether to screen it from heat, cold, or wet, or to disguise themselves from observation, is left to conjecture.

Of the Falcon.

THE numerous species of which this kind is composed, are found in almost every part of the world, from the frigid to the torrid zone: they are divided into various families, consisting of Falcons, Eagles, Hawks, Kites, Buzzards, and Harriers, and are readily known by the following characteristics:—

The bill is strong, sharp, and much hooked, and is furnished with a naked skin or cere situated at the base, in which are placed the nostrils; the head and neck are well clothed with feathers, which sufficiently distinguish this genus from the Vulture kind; the legs and feet are scaly, having three toes before and one behind; the claws are large and strong, much hooked, and very sharp. The larger species feed on quadrupeds and birds, some on fish, others on reptiles; many of the inferior kinds on insects. The plumage differs greatly according to sex and age, the young of some not acquiring the adult livery in less than three, four, and even six years. The latter are moreover distinguished generally, by more numerous and varied spots and lines, longitudinally disposed, while the colours of some of the mature birds appear in large masses or bands, running transversely. They moult only once a year. Birds of this genus are also distinguished by their undaunted courage, and great activity. Buffon, speaking of the Eagle, compares it with the Lion, and ascribes to it the magnanimity, the strength and the forbearance of that noble quadruped. The Eagle despises small animals, and disregards their insults; he seldom devours the whole of his prey, but like the Lion,

leaves the fragments to other animals: except when famishing with hunger, he disdains to feed on carrion. The eyes of the Eagle have the glare of those of the Lion, and are nearly of the same colour; the claws are of the same shape, and the cry of both is powerful and terrible; destined for war and plunder, they are equally fierce, bold, and untractable. Such is the resemblance which that ingenious and fanciful writer has pictured of these two noble animals: the characters of both are striking and prominent, and hence the Eagle is said to extend his dominion over the birds, as the Lion over the quadrupeds.

The same writer also observes, that, in a state of nature, the Eagle never engages in a solitary chase but when the female is confined to her eggs or her young: at this season the return of the smaller birds affords plenty of prey, and he can with ease provide for the sustenance of himself and his mate; at other times they unite their exertions, and are always seen close together, or at a short distance from each other. Those who have had an opportunity of observing their motions, say, that the one beats the bushes, whilst the other, perched on an eminence, watches the flight of the prey. They often soar out of the reach of human sight: and notwithstanding the immense distance, their cry is still heard, and then resembles the yelping of a dog. Though a voracious bird, the Eagle can endure hunger for a long time. An Eagle, caught in a fox-trap, is said to have passed five weeks without the least food, and did not appear sensibly weakened till towards the last week, when a period was put to its existence.

THE GREENLAND FALCON.*

(Falco Grœnlandicus, Linnæus.—Hancock.)

THIS is a very elegant species; length of the male twenty-one inches, of the female two feet three inches. The bill is much hooked, and yellow; iris dusky; throat white, as is likewise the general colour of the plumage, but spotted with brown; the breast and belly in some are marked with lines, pointing downwards; the spots on the

* This bird and the Iceland, or Jer-Falcon, were considered as one species, until they were separated by Mr. John Hancock, who pointed out their characteristic features in a paper read in the Natural History Section of the British Association, at their Meeting in Newcastle, in 1838, and afterwards published in the Annals of Natural History, vol. 2., page 241.

back and wings are larger; the feathers on the thighs are very long, and of a pure white; those of the tail are barred: the legs are pale blue, feathered below the knee. This bird is a native of the cold and dreary climates of the north, and is found in Iceland, Norway, Russia, and Baffin's Bay; it is never seen in warm, and seldom in temperate climates; it is found, but rarely, in Scotland and the Orkneys. Next to the Eagle, it is the most formidable, active, and intrepid of all rapacious birds, and the most esteemed for falconry. It is transported from Iceland and Russia into France, Italy, and even into Persia and Turkey; nor does the heat of these climates appear to diminish its strength, or blunt its vivacity. It boldly attacks the largest of the feathered race; the Stork, the Heron, and the Crane are easy victims: it kills hares by darting directly upon them. The female, as in all other birds of prey, is much larger and stronger than the male, which is used in falconry, chiefly to catch the Kite, the Heron, and the Crow. Our figure was taken from a female now in the Newcastle Museum.

THE LANNER.*

(Falco Lanarius, Linn.—*Faucon lanier*, Temm.)

THIS bird is about the size of the Greenland Falcon. Bill blue; cere inclining to green; eyes yellow; the feathers on the upper parts of the body are brown, with pale edges; above each eye is a white line, which runs towards the hinder part of the head, and beneath it a black streak pointing down towards the neck; throat white; breast dull yellow, marked with brown spots; thighs and vent the same; quill feathers dusky, marked on the inner webs with oval spots, of a rust colour; the tail is spotted in the same manner; legs short and strong, and of a bluish colour.

The Lanner is not common in England; it breeds in Ireland, and is found in various parts of Europe. It derives its name from the mode of tearing its prey into small pieces with its bill.

* Montagu considers the Lanner lost, or else it is a Peregrine. Temminck recognizes it as a distinct species, but does not mention England as one of its habitats. Captain Sabine considers the Falco Stellaris and Stone Falcon of authors to belong to the Lanner, being the young bird, and not referable to the Peregrine, though they have always been made so.

THE PEREGRINE FALCON.*

PASSENGER FALCON.

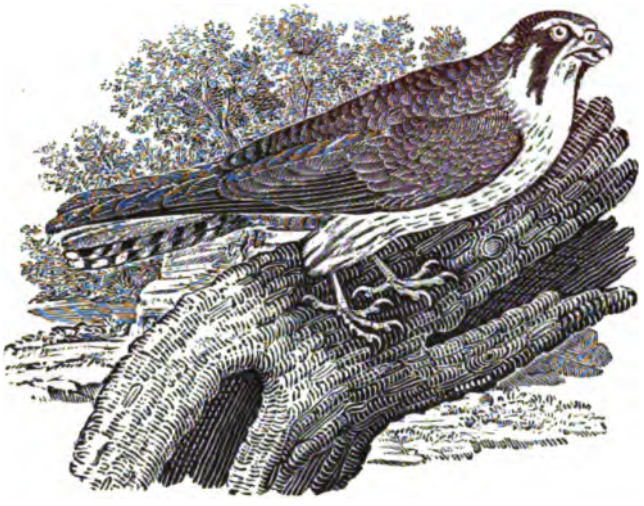
(*Falco peregrinus*, Linn.—*Faucon pélerin*, Temm.)

THE length of this bird is eighteen inches, breadth three feet six and a half inches, weight two and a quarter pounds. The bill is pale blue, tipped with black; it is short, strong, and much notched. The irides are dark; orbits and cere yellow: the head, hinder part of the neck, and cheeks are

* The female in falconry is called a *Falcon*, the male a *Tiercel*; the female yearling is termed a *red Falcon*, the male a *red Tiercel*, and when thoroughly docile is called *Gentle* or *Gentil Hawk*. This is the Lanner of the British Zoology. Captin Sabine includes the Falco communis of Gmelin and the French naturalists, among the synonymes of the Peregrine.

brownish black, with a stripe of that colour falling down from the cheeks and corners of the mouth, before the auriculars, on each side of the throat. The upper plumage is dingy bluish ash, more or less clouded and barred with dark brown, and the shaft of each feather black. The bastard wing, and the primary and secondary quills appear at a first glance to be of an uniform plain dark ash coloured brown, but on a nearer inspection the whole are seen to be barred with darker spots, and tipped with dull white. The rump and tail coverts are more distinctly barred, and of a lighter colour than the other upper parts. The tail, which consists of twelve feathers, is a dark dingy ash, barred or spotted with brownish black, and tipped with pale brown or dirty white. The under parts of the plumage are pale clay colour, plain on the auriculars, chin, and fore part of the neck; but towards the breast, the feathers are slightly marked with very small scratches of black, and the breast with roundish black spots. The sides, belly, and insides of the wings are dull white, beautifully, and distinctly barred with dark brown; the primary and secondary quills, on the inside, are also barred, in the same way, with ash and dingy freckled white. The thighs are long, and prettily marked with small heart-shaped spots; legs and toes short, strong, and yellow; claws black.

The bird from which this figure and description were taken, was a male, shot by M. Bell, Esq., of Woolsington, in the act of tearing a Partridge, March 21, 1814. Length from bill to tail sixteen inches: breadth thirty-seven inches; weight twenty-three ounces and a half.



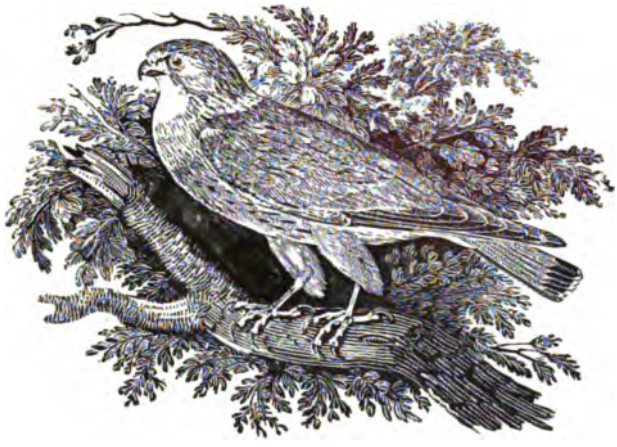
THE HOBBY.

(*Falco Subbuteo*, Linn.—*Faucon hobereau*, Temm.)

THE length of the male is twelve inches; breadth about two feet; the tips of the wings reach beyond the extremity of the tail. The bill is blue; cere and orbits of the eyes yellow; irides dark hazel; a light coloured streak passes over each eye; the top of the head, and back, are bluish black; wing coverts the same, but in some edged with rust colour; the hinder part of the neck is marked with two pale yellow spots; a black mark from behind each eye, pointing forward, is extended down on the neck; the breast and belly are pale, marked with dusky streaks; the thighs rusty with long

dusky streaks; wings brown; the two middle tail feathers deep dove colour, the others barred with rusty, and tipped with white; the legs and feet are yellow. The female is much larger, and the spots on her breast more conspicuous than those of the male.

The Hobby breeds with us, lays four eggs, irregularly spotted or blotched with brown, and is said to migrate in October. It was formerly used in falconry, chiefly for Larks and other small birds, which were caught in a singular manner; when the Hawk was cast off, the Larks, fixed to the ground through fear, became an easy prey to the fowler, who drew a net over them. Buffon says, that it was used in taking Partridges and Quails.



THE MERLIN.

(Falco Æsalon, Linn.—*Faucon émérillon*, Temm.)

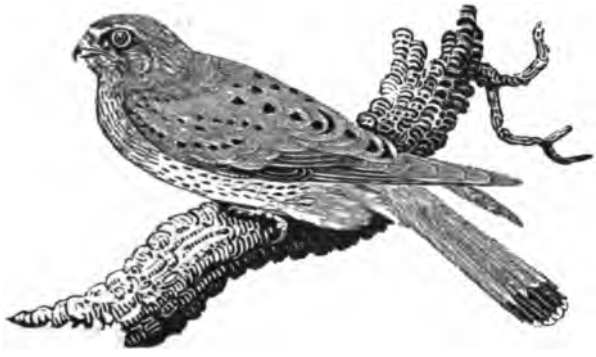
THE Merlin is one of the smallest of the Falcon tribe in this country, the male scarcely exceeding the size of a Blackbird. The specimen, which was lent to this work by a young friend and rising naturalist, Mr. John Hancock, of Newcastle, is the fourth of the kind which we have ever heard of in the north of England. Length eleven and a half inches; breadth twenty-four and three-quarters; weight six and a half ounces. The bill is bluish; irides dark brown: its upper plumage is of a deep lead-coloured blue, with the shaft of each feather on the back, wing coverts, scapulars, and upper part of the head black; the quill feathers are dark brown; inner webs crossed with bars or spots of white; the end of the tail is black, tipped with

white; the inner webs, except the two middle feathers, are marked with undefined or indistinct darkish bars or spots; the under parts rufous, with longitudinal brown streaks or spots; the sides of the neck to the nape are also rufous; and the cheeks faintly partake of the same colour; the chin white; legs yellow; claws black.

The Merlin, though small, is not inferior in courage to any of the Falcon tribe. It was used for taking Larks, Partridges, and Quails, which it would frequently kill by one blow, striking them on the breast, head, or neck. It flies low, and with great celerity and ease. It preys on small birds; breeds in wild moory districts in the northern parts of Britain; and lays four or five eggs thickly mottled with rusty brown.

THE FEMALE MERLIN.

THE bill is blue; cere and irides dark brown; head rust colour, streaked with black; back and wings of a deepish brown, tinged with ash, streaked down the shafts with black, and edged with rusty; quill feathers dark, tipped and margined on the inner webs with reddish white; breast and belly yellowish white, with ferruginous streaks pointing downwards; the tail is long, and marked with alternate dusky and pale bars; the wings when closed, do not reach quite to the end of the tail: legs yellow; claws black.



THE KESTREL.

STONEGALL, STANNEL HAWK, OR WINDHOVER.

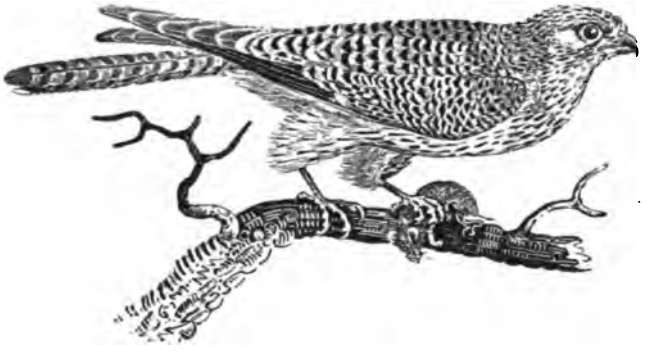
(Falco Tinnunculus, Linn.—*Faucon cresserelle*, Temm.)

THE male differs so much from the female that we have given a figure of a mature bird which we had in our possession. Length fourteen inches; breadth two feet three inches; bill blue; cere and eyelids yellow; eyes black; forehead dull yellow; top of the head, back part of the neck, and sides, as far as the points of the wings, lead colour, faintly streaked with black; the cheeks are paler; from the corner of the mouth on each side a darkish streak points downwards; back and coverts of the wings bright cinnamon brown, spotted with black;* quill feathers dusky, with light edges; inside of the wings white, beautifully spotted with brown on the under coverts, and barred on all the quills with pale ash; the under part of the body is pale rust

* Some specimens are much more spotted than others.

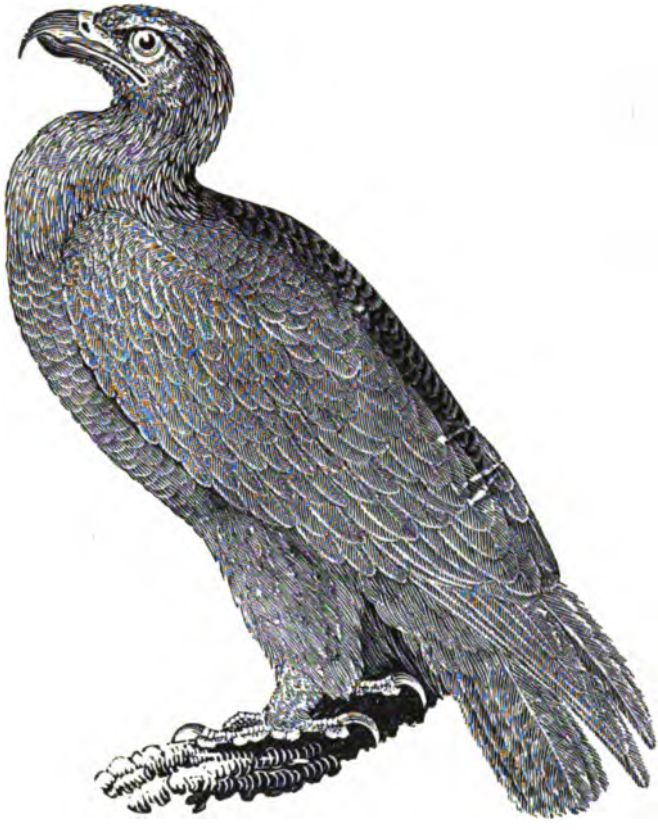
colour, streaked and spotted with black; thighs plain; rump and upper coverts lead blue, and the tail feathers fine blue grey, with black shafts; towards the end is a broad black bar both on the upper part and under sides; the tips are white: legs yellow, claws black.

The Kestrel is widely diffused throughout Europe, and is found in the more temperate parts of North America: it is a handsome bird; with an acute sight, and easy graceful flight; it breeds in the hollows of trees, and in the holes of rocks, towers, and ruined buildings; lays four or five pale reddish eggs; feeds on small birds, field mice, and reptiles; after securing its prey, it plucks the feathers very dexterously from birds, but swallows mice entire, and discharges the hair, in the form of round balls, by its mouth. This bird is frequently seen hovering in the air, and fanning with its wings, by a gentle motion, or wheeling slowly round, at the same time watching for its prey, on which it shoots like an arrow. It was formerly used in Great Britain for catching small birds and young Partridges.



THE FEMALE KESTREL.

THIS beautiful bird is distinguished from every other Hawk by its variegated plumage; the bill is blue; cere and feet yellow; eyes dark, surrounded with a yellow skin; head rust coloured, streaked with black; there is a light spot behind each eye; the back and wing coverts are rusty brown, and elegantly marked with numerous undulated bars of black; the breast, belly, and thighs are of a pale reddish buff, with dusky streaks pointing downwards; vent plain; the tail is marked by a pretty broad dark ash-coloured bar near the end; a number of smaller ones, the same colour, occupy the remaining part; the tip is pale.



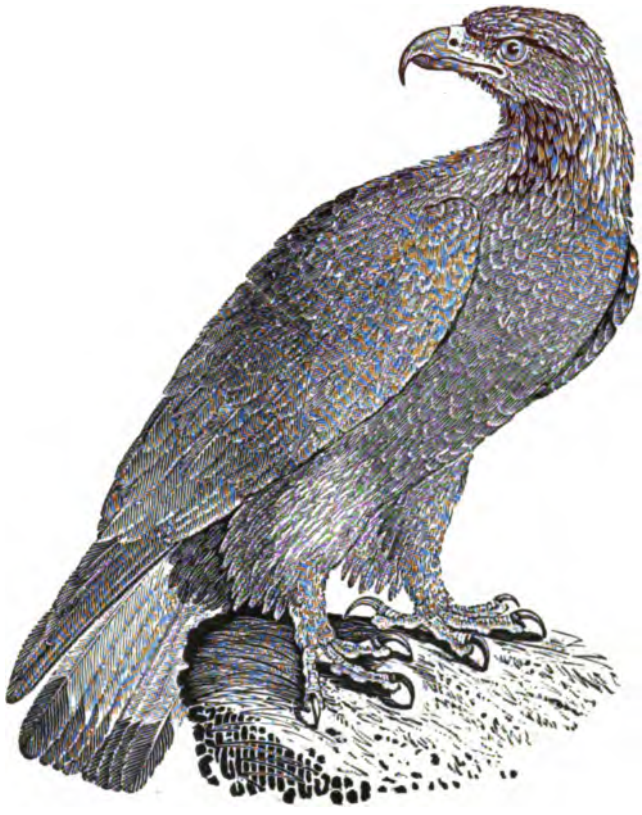
THE GOLDEN EAGLE.

(*Falco Fulvus*, Linn.—*Aigle royal*, Temm.)

THIS bird measures from the point of the bill to the extremity of the tail, scarcely three feet; from tip to tip of the wings, above seven; and weighs from sixteen to eighteen pounds. The male is smaller, and does not weigh more than twelve pounds. The bill is of a deep blue; cere yellow;

eyes large, deep sunk, and covered by a projecting brow; the iris hazel, and sparkles with uncommon lustre. The general colour is deep brown, mixed with tawny on the head and neck: quills chocolate, with white shafts; tail black, spotted with ash; legs yellow, feathered down to the toes, which are very scaly; the claws are remarkably large; the middle one is two inches in length.

This noble bird is found in various parts of Europe; but abounds most in the warmer regions, seldom being met with farther north than the fifty-fifth degree of latitude. It is known to breed in the mountainous parts of Ireland; lays three, and sometimes four eggs, though it seldom happens that more than two are prolific. Pennant says there are instances, though rare, of their having bred in Snowdon Hills. Wallis, in his Natural History of Northumberland, says, "it formerly had its aerie on the highest and steepest part of Cheviot. In the beginning of January, 1735, a very large one was shot near Warkworth, which measured from point to point of its wings, eleven feet and a quarter."



THE GOLDEN EAGLE.

IMMATURE.

THE upper part of the head and neck is mixed with rust colour, and the base of the larger feathers marked with white: the bill is of a dark horn colour; cere yellow: iris hazel; between the bill and the eye is a naked skin of dirty brown: legs feathered to the toes, which are yellow, claws

black: the tail is distinguished by a white ring, which covers about two-thirds of its length; the remaining part is black.

The bird in this plumage is the Ring-tailed Eagle of authors. It is now, however, ascertained to be the immature state of the Golden Eagle, (Falco Fulvus.) The young appear to wander further from their native haunts than the parent birds, hence they are more frequently met with in lowland countries.

THE WHITE-TAILED EAGLE.

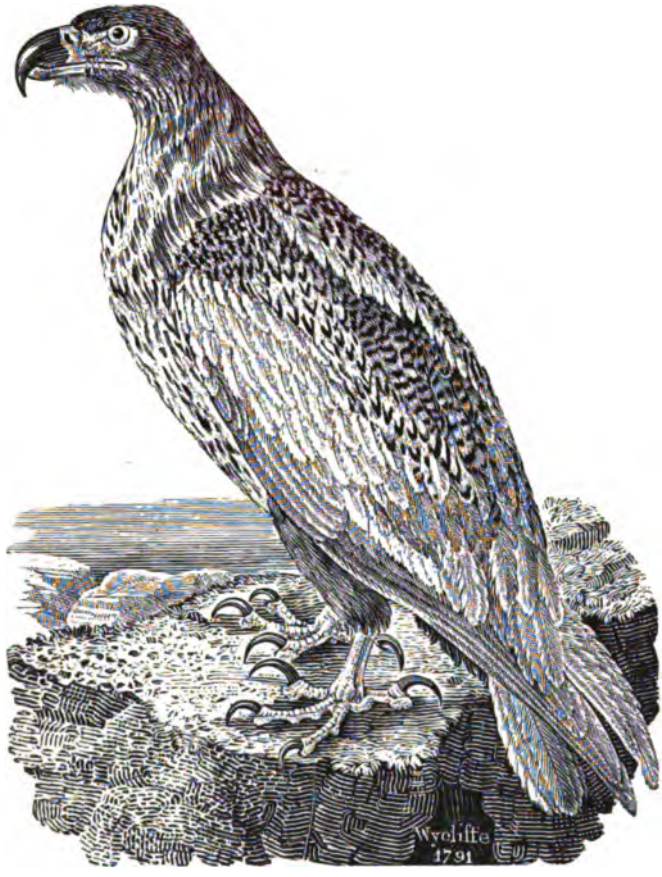
GREAT ERNE, OR CINEREOUS EAGLE.

(*Falco Albicilla*, Linn.—*Aigle pygargue*, Temm.)

THIS bird is larger than the Golden Eagle. The length above three feet, expanded wings upwards

of eight. The beak, cere, and eyes are of a pale yellow: the space between the beak and the eye is bluish, thinly covered with hair: the sides of the head and neck a pale ash, mixed with reddish brown: general colour of the plumage brown, darkest on the upper part of the head, neck, and back; quill feathers very dark; breast irregularly marked with white spots; tail white; the legs, which are of a bright yellow, are feathered a little below the knees; claws black.

This bird inhabits all the northern parts of Europe, and is found in Scotland and other parts of Great Britain. It is said to lay only two eggs during the whole year, and frequently produces only one bird; it is however widely dispersed, and was met with at Botany Island by Captain Cook. It lives chiefly on fish: its usual haunts are by the sea-shore; it also frequents the borders of large lakes and rivers; and is said to see so distinctly in the dark, as to be able to pursue and catch its prey during the night. The story of the Eagle brought to the ground after a severe conflict with a cat, which it had seized and taken up in the air with its talons, is very remarkable. Mr. Barlow, who was an eye-witness of the fact, made a drawing of it, which he afterwards engraved.



THE WHITE-TAILED EAGLE.

IMMATURE.

THE bill bluish: irides light hazel, a row of strong bristly feathers hangs down from its under mandible next to its throat, whence it has been termed the Bearded Eagle; the top of the head and back part of the neck are dark brown, inclining

to black; the feathers on the back are variegated by a lighter brown, with dark edges; scapulars pale brown, the edges nearly white; breast and belly whitish, with irregular spots of brown; tail feathers dark brown, the outer edges of the exterior feathers whitish; quill feathers and thighs dusky; legs and feet yellow; the claws, which are large, and form a complete semicircle, are of a shining black.

THE OSPREY.

BALD BUZZARD, SEA EAGLE, OR FISHING HAWK.

(*Falco Haliaëtus*, Linn.—*Aigle balbuzard*, Temm.)

THE length of the male is twenty-two inches, the female about two feet: breadth above five: bill black, cere blue, eyes yellow; crown of the head white, marked with oblong dusky spots; the cheeks, and all the under parts of the body, are white, slightly spotted with brown on the breast; from the corner of each eye a streak of dark brown extends down the sides of the neck towards the

wing; the upper part of the body is brown; the two middle tail feathers the same; the others are marked on the inner webs with alternate bars of brown and white: legs very short and thick, being only two inches and a quarter long, and two inches in circumference; they are of a pale blue; claws black; outer toe larger than the inner one, and turns easily backward, by which means this bird can more readily secure its slippery prey.

Buffon observes that the Osprey is the most numerous of the large birds of prey, and is scattered over Europe, from Sweden to Greece, and that it is found even in Egypt and Nigritia. Its haunts are on the sea shore, and on the borders of rivers and lakes; its principal food is fish; it darts upon its prey with great rapidity, and undeviating aim. The Italians compare its descent upon the water to a piece of lead falling upon that element, and distinguish it by the name of *Aquila Piumbina*, or the Leaden Eagle. It builds on trees and lays three or four eggs, of an elliptical form, rather larger than those of a hen. The Carolina and Cayenne Ospreys are varieties of this species.

THE GOSHAWK.

(Falco palumbarius, Linn.—*L'Autour* Temm.)

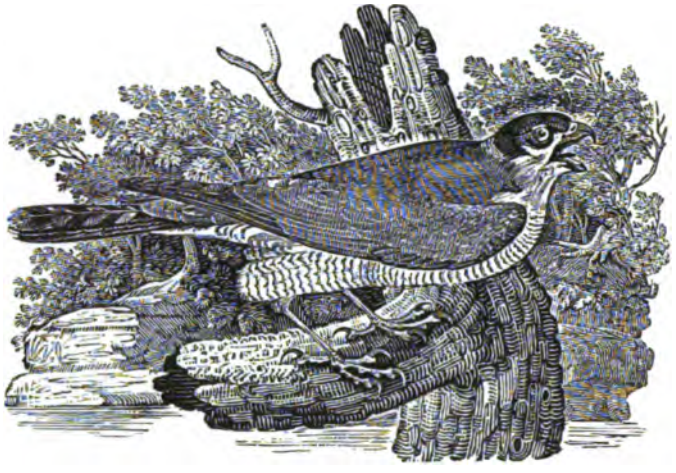
LENGTH of the female from one foot ten inches to two feet, the male is a third less: the bill blue, tipped with black; cere green; eyes yellow; a whitish line passes over each eye: the head and all the upper parts are of a deep brown; each side of the neck is irregularly marked with white; the breast and belly are white, with a number of wavy lines or bars of black; the tail long, of an ash colour, and crossed with four or five dusky bars; legs yellow; claws black; the wings are much shorter than the tail. Buffon, who brought up two young birds of this kind, a male and a female, makes the following observation: "That the Goshawk, before it has shed its feathers, that is, in its

first year, is marked on the breast and belly with longitudinal brown spots; but after it has had two moultings they disappear, and their place is occupied by transverse bars, which continue during the rest of its life." He observes further, "that though the male was much smaller than the female, it was fiercer, and more vicious. Feeds on mice and small birds, and eagerly devours raw flesh; it plucks the birds very neatly, and tears them into pieces before it eats them, but swallows the pieces entire; and frequently disgorges the hair rolled up in small pellets."

The Goshawk is found in France and Germany; sometimes in England; is common in North America, Russia, and Siberia: in Chinese Tartary there is a variety which is mottled with brown and yellow. They are said to be used by the Emperor of China in his sporting excursions, when he is usually attended by his grand falconer, and a thousand of inferior rank. Every bird has a silver plate fastened to its foot, with the name of the falconer who has the charge of it, that in case it should be lost, it may be restored to the proper person; but if he should not be found, the bird is delivered to another officer called the *guardian of lost birds*, who, to make his situation known, erects his standard in a conspicuous place among the army of hunters. In former times, the custom of carrying a Hawk on the hand was confined to men of high distinction; so that it was a saying among the Welsh, "you may know a gentleman by his Hawk, horse, and greyhound." Even the ladies in those times were partakers of this gallant sport, and have been represented in sculpture with Hawks on their hands.

At present this noble diversion is wholly laid aside in this country; the advanced state of agriculture which every where prevails, and the consequent improvement and inclosure of lands, would but ill accord with the pursuits of the falconer, who requires a large and extensive range of country, where he may pursue his game without molestation to himself, or injury to his neighbour. The expence that attended this sport was very considerable, which confined it to princes and men of the highest rank. In the time of James I. Sir Thomas Monson is said to have given a thousand pounds for a cast of Hawks. In the reign of Edward III. it was made felony to steal a Hawk; to take its eggs, even in a person's own ground, was punishable with imprisonment for a year and a day, together with a fine at the king's pleasure. Such was the delight our ancestors took in this royal sport, and such were the means by which they endeavoured to secure it. Besides the bird just described, there are many other kinds which were formerly in high estimation for the sports of the field; these were principally the Falcon, the Jer-Falcon, the Lanner, the Sacre,* the Hobby, the Kestrel, and the Merlin: these are called the Long-winged Hawks, and are distinguished from the Goshawk, the Sparrow-hawk, the Kite, and the Buzzard, which are of shorter wing, slower in their motions, more indolent, and less courageous than the others.

* A name implying a particular brown colour of some of the unmoulted Falcons-Gentil.



THE SPARROW-HAWK.

(Falco Nisus, Linn.—*L'Épervier*, Temm.)

THE length of the male is twelve inches; that of the female fifteen. The bill is blue, furnished with bristles at the base, which overhang the nostrils; eyes bright orange; head flat at the top, and above each eye is a strong bony projection, which seems as if intended to secure it from external injury; from this projection a few scattered spots of white form a faint line running backward towards the neck: the top of the head and all the upper parts are of a dusky brown, tinged with blue; on the back part of the head there is a faint line of white; the scapulars are marked with two spots of white on each feather; the greater quill feathers and the tail are dusky, the latter are marked with four bars of a lighter hue; the tips white; the inner webs of

all the quills are marked with two or more large white spots; the breast, belly, and under coverts of the wings and thighs are white, beautifully barred with brown; the throat is faintly streaked with brown: legs and feet yellow; claws black.

The above is the description of a female: the male differs both in size and colour: the upper part of his body is of a dark lead colour, and the bars on his breast are more numerous.

The female builds her nest in hollow trees, high rocks, or lofty ruins, sometimes in the old nest of a crow, and generally lays four or five eggs spotted with red at the thicker end.

The Sparrow-hawk is very numerous in various parts of the world, from Russia to the Cape of Good Hope. It is a bold and spirited bird; but is obedient and docile, and can be easily trained to hunt Partridges and Quails; it makes great destruction among Pigeons, young poultry, and small birds of all kinds, which it will attack and carry off in the most daring manner.

THE KITE.

FORK-TAILED KYTE, OR GLEAD.

(Falco Milvus, Linn.—*Milan royal*, Temm.)

Is easily distinguished from the Buzzard, and indeed from all the rest of the tribe, by its forked tail. Its length is about two feet; bill horn colour, furnished with bristles at the base; eyes and cere yellow; the feathers on the head and neck are long and narrow, of a hoary colour, streaked with brown down the middle of each; those on the body are reddish brown, the margin of each feather pale; quills dark brown, legs yellow, claws black. It is common in England, where it continues the whole year. It is found in various parts of Europe, in very northern latitudes, whence it retires towards Egypt before winter, in great numbers: it is said

to breed there and return in April to Europe, where it breeds a second time, contrary to the nature of rapacious birds in general. It lays two or three eggs of a whitish colour, spotted with pale yellow, of a roundish form. Though the Kite weighs somewhat less than three pounds, the extent of its wings is more than five feet; its flight is rapid, and it soars very high in the air, frequently beyond the reach of sight: yet from this distance descends upon its prey with irresistible force; its attacks are confined to small quadrupeds and birds; it is particularly fond of young chickens, but the fury of their mother is generally sufficient to drive away the robber.

THE BUZZARD.

PUTTOCK.

(Falco Buteo, Linn.—*Buse commune*, Temm.)

M. BUFFON distinguishes the Kites and the Buzzards from the Eagles and Hawks by their habits and dispositions, which he compares to those of the Vultures, and places them after those birds. Though possessed of strength, agility, and weapons to defend themselves, they are cowardly and inactive; they will fly before a Sparrow-hawk, and when overtaken, will suffer themselves to be beaten, and even brought to the ground, without resistance.

The Buzzard is about twenty inches in length, breadth four feet and a half. Its bill is of a lead grey; in some the eyes are pale yellow; in others hazel; upper parts of the body dusky brown; wings and tail marked with bars of a darker hue: the under parts pale, variegated with light reddish brown: legs yellow; claws black. But birds of this species are subject to great variations, as scarcely two are alike; some are entirely white; of others the head only is white; and others again are mottled with brown and white.

This well-known bird is of a sedentary disposition: it continues many hours perched upon a tree or eminence, whence it darts upon the game that comes within its reach; it feeds on birds, small quadrupeds, reptiles, and insects. Its nest is constructed with small branches, lined with wool and other soft materials; it lays two or three eggs, whitish, spotted with brown. It feeds and tends its young with great assiduity.

The author was favoured with one of these birds by John Trevelyan, Esq., of Wallington, by whom it was shot in the act of devouring its prey—a Partridge it had just killed. It had separated the flesh from the bones, which, with the legs and wings, were discovered lying at a small distance from the place where the Buzzard was shot.

THE ROUGH-LEGGED BUZZARD.

(Falco Lagopus, Gm. Linn.—*Buse pattue*, Temm.)

THE length from the tip of the bill to end of the tail twenty-two inches and a half; breadth four feet four inches; weight two pounds and a half. The bill is slightly notched, short, and bluish black; cere yellow; irides pale yellow. The head straw yellow, streaked with narrow lines of brown; the breast and neck the same, but the streaks are broader; the middle of the belly to the thighs chocolate brown; back and wings the same; coverts somewhat of a paler cast, the lesser edged with yellow, and the greater with rather undefined dirty or brownish white; first and secondary quills barred with brown; the upper coverts of the tail white, with yellowish edges, and marked with

longish pointed spots of brown; under coverts yellowish white; tail feathers white at the base, and irregularly barred alternately with deeper and lighter brown to near the end, where they are slightly tipped with dirty white; the long tufted feathers, which cover the thighs, are reddish or tawny yellow, streaked with spots of brown: legs the same, and feathered to the toes; the toes yellow and rather short; claws black and not much hooked.

THE HONEY BUZZARD.

(*Falco Apivorus*, Linn.—*Buse bondrée*, Temm.)

MEASURES about two feet in length; the wings extend above four feet. The bill is black, and rather longer than that of the Buzzard; eyes yellow; head large and flat, and of an ash colour; upper parts dark brown: the under parts white, spotted or barred with rusty brown on the breast and belly: the tail brown, marked with three broad dusky bars, between each of which are two or three of the same colour, but narrower; the legs are stout and short, of a dull yellow; claws black.

This bird builds a nest similar to that of the Buzzard, and of the same kind of materials; its eggs are blotched all over with dark brown; it sometimes takes possession of the nests of other birds, and feeds its young with wasps and other insects; it is fond of field mice, frogs, and lizards. It does not soar like the Kite, but flies low from tree to tree. It is found in all the northern parts of Europe, and in the open parts of Siberia, but is not so common in England as the Buzzard.

MOOR BUZZARD.

DUCK HAWK, OR WHITE HEADED HARPY.

(*Falco Rufus*, Linn.—*Busard harpaye ou de marais*, Temm.)

LENGTH about twenty-two inches, breadth of the female four feet five and a half inches. The bill black; cere and eyes yellow; crown of the head yellowish white, lightly tinged with brown; throat of a light rust colour; the rest of the plumage reddish brown, with pale edges; greater wing coverts tipped with white; legs yellow; claws black.

Birds of this kind vary much: in some, the crown and back part of the head are yellow; and in one described by Latham, the whole bird was uniformly of a chocolate brown, with a tinge of rust colour. The above figure and description were taken from a very fine living bird, sent for the use of this work by the late John Silvertop, Esq., of Minsteracres, Northumberland, which very nearly agreed with that figured in the *Planches Enluminés.**

The Moor Buzzard preys on rabbits, on young wild ducks, and other water fowl; and likewise feeds on fish, frogs, reptiles, and even insects: its haunts are in hedges and bushes near pools, marshes, and rivers that abound with fish. It builds its nest a little above the surface of the ground, or in hillocks covered with thick herbage: and lays three or four eggs of a whitish colour, irregularly sprinkled with dusky spots. Though smaller, it is bolder and more active than the Common Buzzard; and, when pursued, faces its antagonist, and makes a vigorous defence.

* According to Temminck, this bird in the adult state corresponds to the *Falco Rufus* of authors, *La Harpaye*, Buff., the *Harpy Falcon* of Latham. It is after the second moult that it forms the *Falco æruginosus*, Lath. *Le Busard de Marais*, Buff.

THE HEN-HARRIER.

DOVE-COLOURED FALCON, OR BLUE HAWK.

(Falco Cyaneus, Mont.—*Busard St. Martin*, Temm.)

LENGTH eighteen inches; breadth somewhat more than three feet. The bill is black, and covered at the base with long bristly feathers; cere, irides, and edges of the eyelids yellow: the upper parts bluish grey, mixed with light tinges of rusty; the breast and under coverts of the wings white, the former marked with rusty-coloured streaks, the latter with bars of the same; the greater quills are black, the secondaries and lesser quills ash grey; the two middle feathers of the tail are grey, the rest are marked on their inner webs with dusky bars; the legs are long,

slender, and yellow. This work has been favoured with several individuals of this species by John Silvertop, Esq.

The Hen-Harrier feeds on birds and reptiles; it breeds annually on Cheviot, and on most of the moory districts in the northern parts of Britain: it flies low, skimming along the surface of the ground in search of prey; makes its nest on the ground, and lays four white eggs: although varieties occur which are faintly spotted with red.

THE HEN-HARRIER.

FEMALE.

LENGTH twenty inches; breadth three feet nine. Bill black; cere and irides yellow; the upper part of the body dusky; breast, belly, and thighs yellowish brown, marked with oblong dusky spots; rump white; a line of whitish feathers passes from the back part of the head behind the eyes to the throat, forming a kind of collar or wreath; there is a white spot under each eye; the tail is long, and marked with alternate brown and dusky bars; legs yellow; claws black. The first plumage of the male resembles that of the female.

MONTAGU'S HARRIER.

ASH-COLOURED FALCON.

(*Falco cineraceus*, Montagu.)

MONTAGU gives a figure and description of this bird as one hitherto not noticed as a distinct species, and has with his usual minuteness detailed his reasons for thinking it is so. The bird is now universally recognized, subsequent observation having established the accuracy of the account given by this indefatigible naturalist. He says, "that it has been long known and confounded with the Hen-Harrier, a proof of which is evident by the description of what Pennant supposed a variety of

the Ringtail." He adds, "that it is hardly necessary to remark, that the bright ferruginous colour of the markings is always sufficient to discriminate this." In the adult male, these bright markings on the under parts of the body, and under the wings, and the black bars on the secondary quills, independent of the great difference in the tail, at once point out the distinction from the male Hen-Harrier. In the female, the uniform ferruginous colour of all the under parts is sufficient to discriminate it from the female Hen-Harrier, besides the colours being much brighter: and in the adolescent or changing state of the plumage, the same difference exists in the markings. These birds breed in England, but whether they remain with us the whole year, has not been ascertained. Our figure was from a stuffed specimen obligingly lent to this work by P. J. Selby, of Twizel House, Esq.

Of the Owl.

THE Owl is distinguished, among birds of the rapacious kind, by peculiar and striking characters: its outward appearance is not more singular than its habits and dispositions: unable to bear the brighter light of the sun, it retires to some lonely retreat, where it passes the day in silence and obscurity; but at the approach of evening, when all nature is desirous of repose, and the smaller animals, which are its principal food, are seeking their nestling places, the Owl comes forth from its lurking holes in quest of prey. Its eyes are admirably adapted for this purpose, being so formed as to distinguish objects with greater facility in the dusk than in broad day-light. Its flight is low and silent during its nocturnal excursions, and when it rests, it is then only known by the frightful and reiterated cries, with which it interrupts the silence of the night. If forced from its retreat during the day, its flight is broken and interrupted, and it is sometimes attended by numbers of small birds, who, seeing its embarrassment, pursue it with incessant cries, tormenting it with their movements: the Jay, Thrush, Blackbird, Redbreast, Titmouse, and others, all assemble to hurry and perplex it. During all this, the Owl remains perched upon the branch of a tree, and answers them only with awkward and insignificant gestures, turning his head, eyes, and body, with all the appearance of mockery and affectation. All the species of Owls, however, are not alike dazzled and

confused with the light of the sun; some of them being able to fly, and see distinctly in open day.

Nocturnal birds of prey have been generally divided into two kinds—that which hath tufted ears or horns, as they have been termed, and that which is plain or without them. These consist of small tufts of feathers, standing up like ears on each side of the head, which are erected or depressed at pleasure; and in all probability are of use in directing the organs of hearing, which are very large. Both kinds are alike in having their eyes so formed as to be able to pursue their prey with much less light than other birds. The general character of the Owl is as follows: The eyes large, and surrounded with a radiated circle of feathers, of which the eye itself is the centre; the beak and talons strong and hooked: the body very short, but thick, and well covered with the softest and most delicate feathers; the external edges of the outer quills in general are finely fringed, which adds greatly to the smoothness and silence of its flight.

THE SNOWY OWL.

OR GREAT WHITE OWL.

(*Strix nyctea*, Linn.—*Chouette harfang*, Temm.)

ON the authority of Mr. Bullock, of London, we give this as a new species of British Owl.* On his tour to the Orkney and Zetland Isles, in the month

* A fine one was shot at Elsdon, Northumberland, in December, 1822, by Alexander Potts. It is probably in very rigorous seasons only that it comes so far south.

of July, 1812, he discovered that these birds breed there, and live chiefly upon Rabbits, the Alpine Hare, the Ptarmigan, and other birds. He describes the male bird to be of an immaculate white, but others are mottled with brown, and he supposes them to be the female, or the young which have not attained to mature plumage. Montagu says this bird rather exceeds the Eagle Owl in size; that it measures nearly two feet in length, and sometimes weighs above three pounds; while Edwards and other ornithologists describe it as being less. The irides are orange yellow; the bill black and nearly covered with feathers; feet to the claws the same. In the stuffed specimen from which the above figure was sketched, the head, coverts, back, breast, and belly were thinly marked with brownish dusky spots; on the latter parts and sides, these spots assumed rather a more wavy shape, and the primary and secondary quills were somewhat barred near the tips. The abode of these birds is chiefly in the arctic regions; they are met with in Norway, Sweden, Lapland, Russia, Siberia, Kamtschatka, Hudson's Bay, and Greenland.

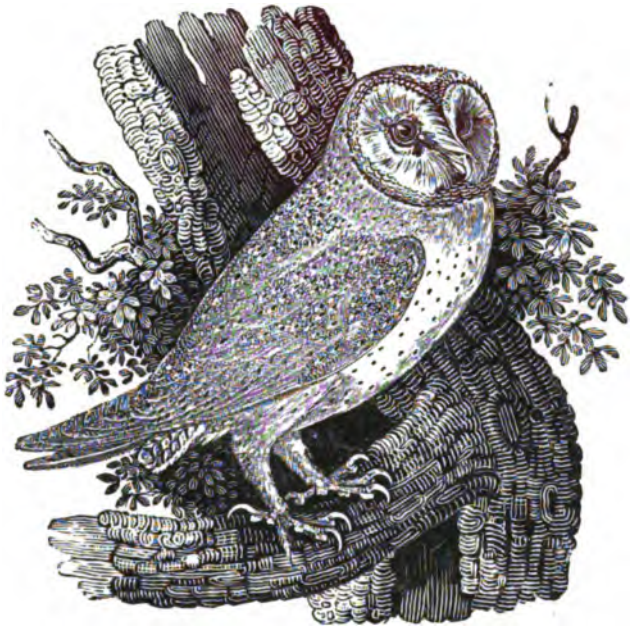
THE TAWNY OWL.

COMMON BROWN IVY OWL, OR HOWLET.

(*Strix aluco*, Meyer.—*Chouette hulotte*, Temm.)

THE bill is white, eyes dark blue; the radiated feathers round the eyes are white, finely streaked with brown; the head, neck, back, wing coverts and scapulars, are tawny brown, finely powdered and spotted with dark brown and black: on the wing coverts and scapulars, are several large white spots, regularly placed, so as to form three rows; the quill feathers are marked with alternate bars of light and dark brown; the breast and belly are pale yellow, marked with narrow dark streaks

pointing downwards, and crossed with others of the same: the legs are feathered down to the toes; the claws large, much hooked, and white. This species is found in various parts of Europe; it frequents woods, and builds its nest in the hollows of trees. The Tawny Owl and Brown Owl have by some authors been described as distinct species; but others seem to agree in considering them identical, the differences arising merely from age and sex.



THE YELLOW OWL.

GILLIHOWLET, CHURCH, BARN, OR SCREECH OWL.

(Strix flammea, Linn.—*Chouette effraie*, Temm.)

LENGTH fourteen inches. Bill pale horn colour; eyes dark; the radiated circle round the eye is composed of feathers of the most delicate softness, and perfectly white; the head, back, and wings are yellow buff, beautifully powdered with very fine grey and brown spots, intermixed with white; the breast, belly, and thighs are white; on the former are a few dark spots; the legs are feathered

down to the toes, which are covered with short hairs; the wings extend beyond the tail, which is short, and marked with alternate bars of dusky and white; the claws are white. Birds of this kind vary considerably; of several which we examined, the differences were very conspicuous, the colours being more or less faint according to the age of the bird; the breast in some was white, without spots—in others pale yellow.

The Yellow Owl is often seen in the most populous towns, frequenting churches, old houses, maltings, and other uninhabited buildings, where it continues during the day, and leaves its haunts in the twilight in quest of prey. It has obtained the name of Screech Owl from its cries, repeated at intervals, and rendered loud and frightful from the stillness of the night. During its repose it makes a blowing noise, somewhat resembling the snoring of a man. It makes no nest, but lays from three to five white eggs, which it deposits in the holes of walls. It feeds on mice and small birds, swallowing them whole, and afterwards emitting the bones, feathers, and other indigestible parts, at its mouth, in the form of small round cakes or pellets, which are often found in the empty buildings it frequents.

TENGMALM'S OWL.*

(*Strix Tengmalmi*, Linn.—*Chouette Tengmalm*, Temm.)

THE length of this bird is about nine and a half inches, breadth twenty-one and a half, weight four ounces: the bill is light horn colour; irides pale yellow; orbits black, and a patch or streak of that colour passes from underneath the eye to the beak. The circular feathers on the face are white, mixed or faintly streaked with pale brown, and surrounded

* In the last edition of this work, this figure was named *Strix passerina*, but from a careful examination of the specimen from which the drawing was made, we find the toes, as represented, are too long; the inaccuracy probably may have arisen from those parts having been mutilated by the shot.

The difference between *Strix passerina* and *Strix Tengmalmi* consists principally in the length of the toes; those of the former being somewhat longer and thinly covered with hair-like feathers, whilst the present species has the feet and toes thickly clothed with downy feathers to the claws.

with a border of black, somewhat divided by small spots of white; the head and neck are spotted with pale brown and white; breast and belly white, streaked and patched with various-sized spots of light brown; legs and vent white; back, wings, and tail brown; somewhat inclining to olive, and distinctly marked with white spots. The legs and feet are covered with soft feathers down to the claws. It frequents rocks, caverns, and ruined buildings, makes its rudely-constructed nest in the most retired places, and lays four or five white eggs. It sees better in the day-time than other nocturnal birds, and gives chase to small birds on the wing; it likewise feeds on mice. It would appear from the accounts of ornithologists that this bird is seldom seen in Britain. The drawing, by Mr. R. R. Wingate, of Newcastle, from which the cut was engraven, was taken from a specimen shot at Widdrington, January, 1813.

THE SHORT-EARED OWL.

(*Strix brachyotos*, Gm. Linn.—*Hibou brachyote*, Temm.)

LENGTH fourteen inches; breadth three feet. The head is small, and hawk-like; bill dusky; the irides are bright yellow, and when the pupil is contracted, shine like gold: the circle round each eye is dirty white, with dark streaks pointing outwards; immediately round the eye is a circle of black; the two ear tufts consist of not more than three feathers, of a pale brown or tawny, with a dark streak in the middle of each; the whole upper part of the body is variously marked with dark brown and tawny, the feathers mostly edged with

the latter; the breast and belly are pale yellow, marked with dark longitudinal streaks, most numerous on the breast: the legs and feet are covered with feathers of a pale yellow; claws much hooked, and black: the wings are long, and extend beyond the tail; quills marked with alternate bars of a dusky and pale brown; the tail is likewise marked with bars of the same colours, and the middle feathers are distinguished by a dark spot in the centre of the yellow space; the tip white. Of several of these birds, both male and female, with which this work has been favoured, both sexes had the upright tufts or ears; in one which was alive, they were very conspicuous, and appeared more erect while the bird remained undisturbed; but when frightened, were scarcely to be seen: in the dead birds they were hardly discernible.

Pennant seems to have been the first who described this beautiful species, which he supposed to be a bird of passage, as it visits us only in the latter part of the year, and disappears in the spring. It has been known to breed in Northumberland, the young having been taken before they were able to fly. It flies by day, and sometimes is seen in companies: twenty-eight were once counted in a turnip field in November.* It is found chiefly in wooded or mountainous countries: its food is principally field mice.

* Communicated by the late Thomas Penrice, Esq., of Yarmouth; but differently accounted for by Montagu, by which it would appear they must have been attracted by immense numbers of mice, on which they prey.

THE FEMALE SHORT-EARED OWL.

THIS bird was somewhat larger than the former; the colours and marks were the same, but much darker, and the spots on the breast larger and more numerous; the ears were not discernible. Being a dead bird, and having not seen any other at the time, the author supposed it to be a distinct kind; but having since seen several, both males and females, is convinced of the mistake.

THE EAGLE OWL.

OR GREAT EARED OWL.

(*Strix bubo*, Linn.—*Hibou grand duc*, Temm.)

Is one of the largest of the British Owls, and has a powerful as well as a dignified look. The ear

tufts are composed of seven or eight feathers which are more than two inches long. The bill is strong, much hooked, and black; claws the same; irides reddish yellow; legs very stout, and covered with a great thickness of short mottled brown feathers; toes the same down to the claws. The predominant colours of the plumage are very dark brown and ferruginous, but mixed and beautifully variegated with markings and shades of black, brown, and yellow, with spots of white, crossed with zigzag lines, and innumerable minute specklings of white, ash-grey, and brown. The outline of our figure was taken from a living bird exhibited in a show, the markings of the plumage from a very ill stuffed specimen, which was taken on the coast of Norway, and obligingly lent to this work by Capt. Wm. Gilchrist, of this port. This bird is sometimes met with in the northern Scottish isles, where it preys upon Rabbits and Grouse, which are numerous there, but it is very rarely seen in England; it generally lays two or three eggs, which are of a round form, and perfectly white.

THE LONG-EARED OWL.

(Strix Otus, Linn.—*Hibou moyen-duc*, Temm.)

LENGTH fourteen inches; breadth about three feet. The bill is black; irides bright orange; the radiated circle round each eye is of a light cream colour, in some parts tinged with red; between the bill and the eye there is a circular streak of dark brown; another circle of dark rusty brown entirely surrounds the face; its ear tufts consist of six feathers, closely laid together, of a dark brown, tipped and edged with yellow; the upper part of the body is beautifully pencilled with fine streaks of white, rusty, and brown; the breast and neck are yellow, finely marked with dusky streaks, pointing downwards; the belly, thighs, and vent

feathers of a light cream colour; there are four or five large white spots upon each wing; the quill and tail feathers are marked with dusky and reddish bars: the legs are feathered down to the claws, which are very sharp, the outer claw is moveable, and may be turned backwards.

This bird is common in various parts of Europe, as well as in this country; its usual haunts are in old ruined buildings, in rocks, and in hollow trees. Buffon observes, that it seldom constructs a nest of its own, but not unfrequently occupies that of the Magpie; it lays four or five white eggs, rounded at the ends; the young are at first white, but acquire their natural colour in about fifteen days.

THE SCOPS EARED OWL.

(Strix Scops, Linn.—*Hibou Scops*, Temm.)

THIS is the smallest of the Owl kind in this country; its bill is brown at the base, and paler at the tip; irides light yellow. The upper plumage appears brown, the under grey, but on a nearer inspection the whole is prettily variegated with white spots, streaks, and bars of dusky brown, rufous and yellow, and almost every feather is speckled with white, brown, and grey; the circular feathers on the face are powdered with brown: the neck, head, and ear feathers, are much the same, but more distinctly marked with bars, streaks, and spots of white, yellow, and brown; the back feathers and greater coverts of the wings are barred, streaked, and speckled with the same colours, but on their outer margins are patched with spots of white; the greater quills are transversely barred on their outer webs with white and

freckled brown, and barred on the inner webs to their tips with the latter colour; the tail is barred nearly in the same way. The legs are covered to the toes with yellowish soft feathers spotted with brown; the toes are without feathers, and are also brown. The stuffed specimen of this rare and curious little bird, from which our figure and description were taken, was sent to the author by Mr. Charles Fothergill, late of York: another is now in the museum of P. J. Selby, Esq., of Twizell House, Northumberland. There is also a very fine specimen in the cabinet of the Hon. Mr. Liddell, at Ravensworth Castle.

Omnivorous Birds.

MANY of the birds which constitute this order resemble each other in their plumage and habits; it includes, however, the Pie, Jay, Nutcracker, Chough, Chatterer, Roller, Oriole, Starling, and rose-coloured Starling; birds which differ from each other in these respects. At the head of these we shall place the Raven, well known by its black glossy plumage and croaking note. Birds of the Crow kind are found in every part of the known world, from Greenland to the Cape of Good Hope; and though their principal food is earth-worms, they may be said to be of great benefit to mankind, not only by devouring putrid flesh, but by destroying great numbers of noxious insects and reptiles. In general they are restless and noisy, easily tamed, and capable of being taught to articulate words, and to obey the voice of their master. They are sagacious, active, and thievish: they are monogamous, and their mutual attachment is very strong and constant. They build mostly in trees, and form a kind of society, in which there appears something like a regular government: a sentinel watches for the general safety, and on the approach of an enemy, or of a stranger, they act in concert, and drive him away with repeated attacks. On such occasions they are as bold as they are cunning in avoiding the smallest appearance of real danger; of this the disappointed fowler has frequently occasion to take notice, on seeing the birds fly away before he can draw near enough to shoot them.

From this circumstance it has been said that they discover their danger by the quickness of their scent, which enables them to provide for their safety in time; but it may partly be ascribed to the quickness of their sight, by which they discover the motions of the sportsman. They moult only once a year, and the young after the first autumnal moult assume the adult livery. There is scarcely any perceptible difference between the sexes.

The external characters of the Crow are well known, and are chiefly as follow:—The bill is strong, and has a slight curvature along the top of the upper mandible; the edges are thin, and sharp or cultrated; in many of the species there is a small notch near the tip; the nostrils are covered with bristles; tongue divided at the end; three toes forward, one behind, the middle toe connected to the outer as far as the first joint.

THE RAVEN.

GREAT CORBIE CROW.

(*Corvus Corax*, Linn.—*Corbeau noir*, Temm.)

Is the largest of this kind; the length is above two feet: breadth four. The female is somewhat less. The bill is strong, and thick at the base, measuring rather more than two inches and a half in length, and covered with strong hairs and bristles, which extend above half its length, covering the nostrils: the general colour of the upper parts is a fine glossy black, reflecting a blue tint in particular lights; the under parts are duller, and of a dusky hue.

The Raven is well known in all parts of the world, and in times of ignorance and superstition was regarded as a bird of ill omen, announcing, by its croaking, impending calamities; of such vast importance was it considered, that the various modulations of its voice were studied with the most careful attention, and were made use of by artful and designing men to mislead the ignorant and credulous. It is a very long-lived bird, and is supposed sometimes to live a century or more. It is fond of carrion, which it scents at a great distance; it will destroy rabbits, young ducks, and chickens: and has been known to seize on young lambs, and even sheep, when sick or weak, and pick out their eyes, while yet alive; it will suck the eggs of other birds; it feeds also on earth-worms, reptiles, and even shell-fish, when urged by hunger. It may be rendered very tame and familiar, and has often been taught to pronounce a variety of words: it is a crafty bird, and will frequently pick up things of value, such as rings, money, &c., and carry them to its hiding place. They build early in the spring, in trees and the holes of rocks, laying five or six eggs, of a pale bluish green, spotted with brown. The female sits about twenty days, and is constantly attended by the male, who not only provides her with abundance of food, but relieves her in turn, and takes her place in the nest. The natives of Greenland eat the flesh, and make a covering for themselves with the skins of these birds, which they wear next their bodies.

THE CROW.

CARRION CROW, BLACK-NEBBED OR MIDDEN CROW.

(*Corvus Corone*, Linn.—*Corneille noire*, Temm.)

Is similar to the Raven in its habits, colour, and external appearance. Length about eighteen inches; breadth three feet. The glossy feathers of the upper plumage have a burnished look, excepting on their edges, which are dull, and form a border to each. This species is more numerous and as widely spread as the Raven; they live mostly in woods; build their nests in trees; and lay five or six eggs, much like those of the Raven. They feed on putrid flesh, and garbage of all sorts; likewise on eggs, shell-fish, worms, and insects.

These wary birds live in pairs, and are commonly seen together flying at a great height, out of the reach of the gun, while they are prowling over the country in search of their food, which, with penetrating eye, and acute scent, they discover afar off. They pluck the feathers off the dead birds, toss them aside, and then pick the flesh from the bones. In winter they take shelter from the extremity of the weather, in the hollows of rocky precipices.

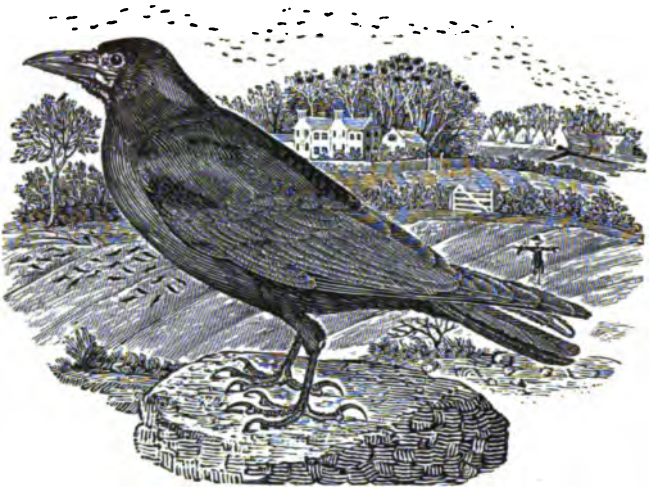
THE HOODED CROW.

(Corvus Cornix, Linn.—*Corneille Mantelée*, Temm.)

Is somewhat larger and more bulky than the Rook, measuring twenty-two inches in length. The bill is black, and two inches long; the head, fore part of the neck, wings, and tail black; the back and all the under parts are of a pale ash; the legs black.

These birds arrive with the Woodcock, and on their first coming frequent the shores of rivers. They depart in the spring, but they do not all leave us, as they have been seen during the summer months, in the northern quarters of our island, where they frequent the mountainous parts of the country, and breed in the pines. In the Zetland islands they are the only species of Crow met with,

and breed in the rocky cliffs on the sea coast. There, and in more northern parts of the world, they continue the whole year, and subsist on sea-worms, shell-fish, and other marine productions. With us they are seen to mix with, and to feed in the same manner as the Rook. During the breeding season they live in pairs, lay six eggs, seldom more than two or three of which are prolific. They are much attached to their offspring.



THE ROOK.

(Corvus frugilegus, Linn.—*Corbeau Freux*, Temm.)

Is about the size of the Carrion Crow, and in its figure very much resembles it. The base of the bill and nostrils, as far as the eyes, is covered with a rough scabrous skin, in which it differs from all the rest of the genus, caused, it is said, by thrusting its bill into the earth in search of worms,* but as the same appearance has been observed in such as have been brought up tame and unaccustomed to

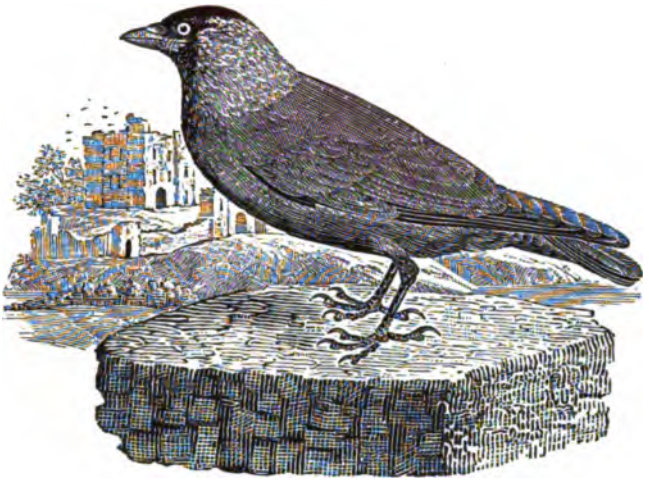
* It is curious to observe the effectual method they take to secure their prey entire; they first seize the worm by the head, and pull it out as far as they can, so as not to break it, and then place their foot upon this part, till they can safely extricate the whole from its hole in the earth.

that mode of subsistence, we are inclined to consider it an original peculiarity. Rooks are fond of the erucæ of the hedge-chafer, or chesnut brown beetle,* for which they search with indefatigable pains. They are often accused of feeding on the corn just after it has been sown, and various contrivances have been made both to kill and frighten them away; but, in our estimation, the advantages derived from the destruction which they make among grubs, larvæ, worms, and noxious insects, greatly overpay the injury done to the future harvest, by the small quantity of corn they may destroy in searching after their favourite food. They are gregarious, and fly in immense flocks morning and evening to and from their roosting places in quest of food. During the breeding time they are jealous and watchful, and will rob each other when they can. They live together in large societies, and build close to each other in trees, frequently in the midst of large and populous towns. These rookeries, however, are often the scenes of bitter contests: the new-comers are frequently driven away by the old inhabitants, their half-built nests torn in pieces, and the unfortunate couple forced

* These insects appear in hot weather, in formidable numbers, disrobing the fields and trees of their verdure, blossoms, and fruit, spreading desolation and destruction wherever they go. They appeared in great numbers in Ireland during a hot summer, and committed great ravages. In the year 1747, whole meadows and corn fields were destroyed by them in Suffolk. The decrease of rookeries in that county was thought to be the occasion of it. The many rookeries with us is in some measure the reason why we have so few of these destructive insects.

Wallis's History of Northumberland.

to begin their work anew in some more undisturbed situation: of this we had a remarkable instance in Newcastle. In the year 1783, a pair of Rooks, after an unsuccessful attempt to establish themselves in a rookery at no great distance from the Exchange, were compelled to abandon the attempt. They took refuge on the spire of that building, and although constantly interrupted by other Rooks, built their nest on the top of the vane, and brought forth their young, undisturbed by the noise of the populace below them; the nest and its inhabitants turning about with every change of the wind. They returned and built their nest every year on the same place till 1793, soon after which the spire was taken down.



THE JACK-DAW.

(Corvus Monedula, Linn.—*Corbeau Choucas*, Temm.)

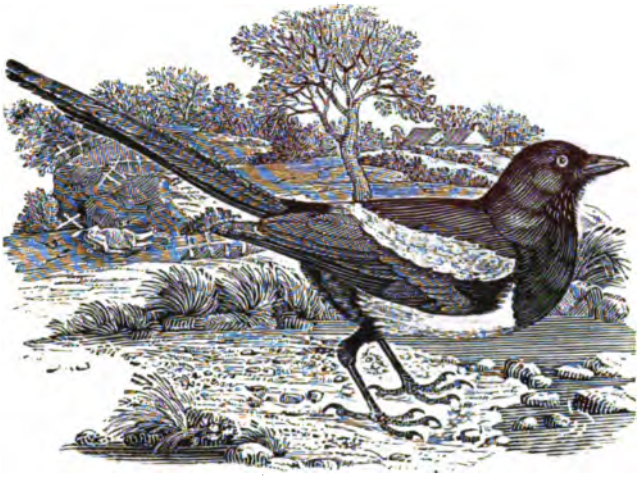
THIS bird is considerably less than the Rook, being only thirteen inches in length, and about twenty-eight in breadth. The bill is black: eyes white; the hinder part of the head and neck hoary grey; the rest of the plumage is of a fine glossy black above; beneath dusky; the legs are black.

The Daw is very common in England, and remains with us the whole year: in other countries, as France and various parts of Germany, it is migratory. They frequent churches, old towers, and ruins, in great flocks, where they build: the female lays five or six eggs, paler than those of the Crow, and smaller. They rarely build in trees: in

Hampshire they sometimes breed in rabbit holes.* They are easily tamed, and may be taught to pronounce several words: they will conceal part of their food, and with it small pieces of money, or toys. They feed on insects, grain, fruit, and small pieces of flesh, and will also eat eggs.

There is a variety of the Daw found in Switzerland, having a white collar round its neck. In Norway and even in this country, individuals have been seen perfectly white.

* White's Natural History of Selborne.



THE MAGPIE.

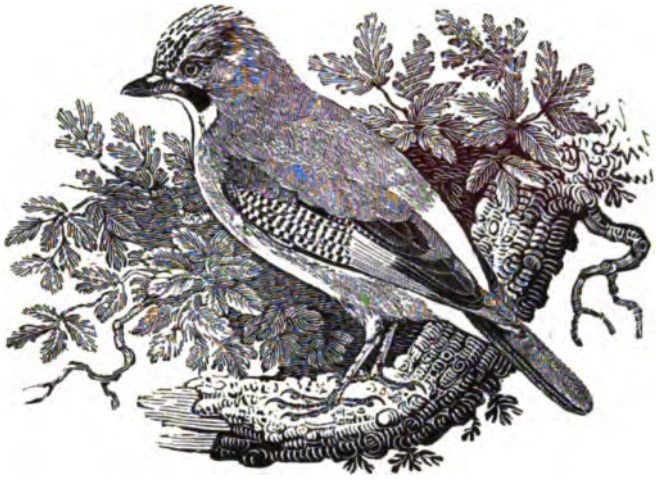
PIANET.

(Garrulus Picus, Temm.—*Pic*, Temm.)

LENGTH about eighteen inches. Bill strong and black; eyes hazel; head, neck, back, breast, and tail coverts deep black, forming a fine contrast with the snowy whiteness of the under parts and scapulars; the neck feathers are long, as are also those on the back, which extend towards the rump, leaving only a small space of ash-grey, between them and the tail coverts; the plumage in general is glossed with green, purple, and blue, which catch the eye in different lights, and are particularly resplendent on the tail, which is very long, and rather wedge-shaped; vent, under tail coverts, thighs, and legs black: on the throat and part of the neck the feathers are mixed with others, resembling strong whitish hairs.

This bird is every where common in England; and is likewise found in various parts of the Continent, but not so far north as Lapland, nor farther south than Italy: it is met with in America, but not commonly, and is migratory there. Like the Crow it is omnivorous. They make their nest with great art, leaving a hole in the side for admittance, and covering the whole upper part with an interweaving of thorny twigs, closely entangled, thereby securing a retreat from the rude attacks of other birds: the inside is furnished with a sort of mattress, composed of wool and other soft materials, on which the young repose; the female lays seven or eight eggs, pale green, spotted with dark grey.

The Magpie is crafty and familiar, may be easily tamed, and taught to pronounce words, and even short sentences, and will imitate any particular noise. It is addicted, like other birds of its kind, to stealing and hoarding. It is smaller than the Jack-Daw, and its wings are shorter in proportion; accordingly its flight is not so lofty, nor so well sustained: it never undertakes long journies, but flies only from tree to tree, at moderate distances.



THE JAY.

(Garrulus glandarius, Temm.—*Geai glandivore*, Temm.)

THIS beautiful bird is not more than thirteen inches in length. Its bill is black; eyes white; the feathers on the forehead are white, streaked with black, and form a tuft which it can erect and depress at pleasure: the chin is white, and from the corners of the bill on each side proceeds a broad streak of black, which passes under the eye; the hinder part of the head, the neck, and back, are of a cinnamon colour; breast the same, but lighter; lesser wing coverts bay; the belly and vent almost white; the greater wing coverts are elegantly barred with black, fine pale blue and white alternately; the greater quills are black, with pale edges, the bases of some of them white;

lesser quills black; those next the body chesnut; the rump is white; tail black, with pale brown edges; legs dirty pale brown.

The Jay is common in Great Britain, and is found in various parts of Europe. It is distinguished as well for the beautiful arrangement of its colours, as for its harsh, grating voice, and restless disposition. Upon seeing the sportsman, it gives, by its cries, the alarm of danger. It builds in woods, and makes an artless nest, composed of sticks, fibres, and slender twigs: lays five or six eggs, ash-grey, mixed with green, and faintly spotted with brown. The young ones continue with their parents till the following spring, when they separate to form new pairs.

They live on acorns, nuts, seeds, and fruits; will eat eggs, and sometimes destroy young birds in the absence of the old ones. When domesticated they may be rendered very familiar, and will imitate a variety of words and sounds. We have heard one imitate the sound of a saw so exactly, that though it was on a Sunday, we could hardly be persuaded that there was not a carpenter at work in the house. Another, at the approach of cattle, had learned to hound a cur dog upon them, by whistling and calling his name: at last, during frost, the dog was excited to attack a cow big with calf, when the animal fell on the ice, and was hurt; the Jay was complained of as a nuisance, and its owner was obliged to destroy it. They sometimes assemble in great numbers early in the spring, and seem to hold a conference, probably for the purpose of pairing and of fixing upon the districts they are to occupy: to hear them is truly curious; while

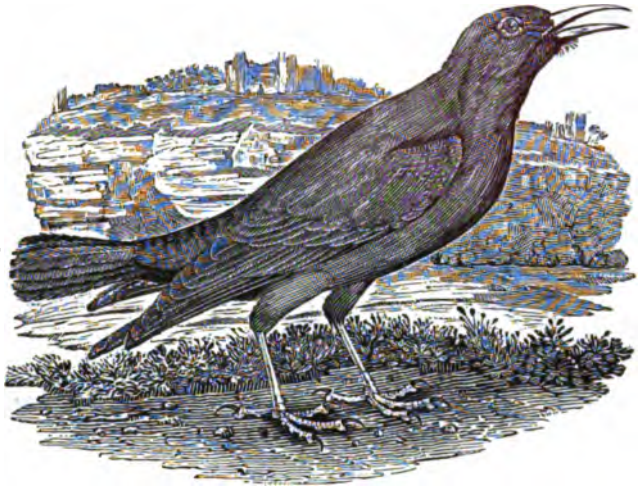
some gabble, shout, or whistle, others with a raucous voice, seem to command attention: the noise made on these occasions may be aptly compared to that of a distant meeting of disorderly drunken persons.

THE NUTCRACKER.

(*Nucifraga Caryocatactes*, Brisson.—*Casse-Noix*, Temm.)

LENGTH thirteen inches. Bill two inches long, and black; eyes hazel; the crown of the head, hinder and fore part of the neck black; the general colour is dusky brown, covered with triangular spots of white; wings black; greater coverts tipped with white; the tail is black, deeply tipped with white; the rump and vent are also white; legs and claws black.

This bird has seldom been seen in England; it is common in Germany, Sweden, and Denmark, and frequents the most mountainous parts of those countries. It builds in holes of trees, and feeds on nuts, acorns, and the kernels of the pine, also on larvæ, and on young birds and eggs. It is said to pierce the bark of trees with its bill, like the Woodpecker. The drawing was from a stuffed specimen in the Wycliffe Museum.



THE CHOUGH.

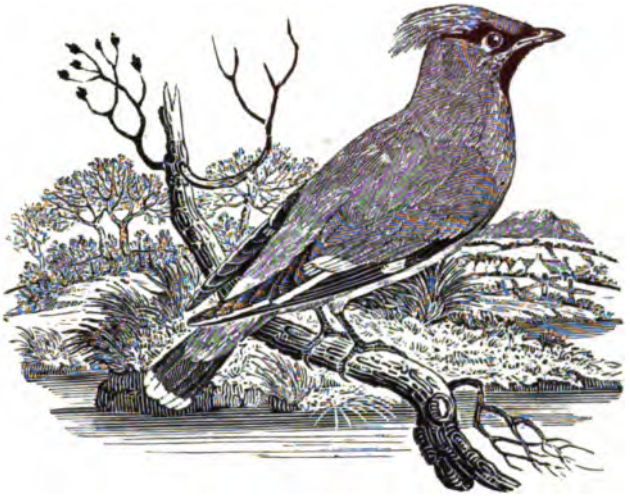
RED LEGGED CROW.

(*Pyrrhocorax Graculus*, Temm.—*Pyrrhocorax coracias*, Temm.)

THIS bird is about the weight of the Jack-Daw, but of a taller and longer shape. The bill is long, curved, sharp at the tip, and of a bright red; the iris is composed of two circles, the outer red, the inner light blue; the eye-lids are red; the plumage is altogether of a purplish violet black; legs red like the bill; claws large, hooked, and black. It builds on high cliffs by the sea-side, lays four or five eggs, spotted with ash, and chiefly frequents the coasts of Devonshire and Cornwall, and likewise many parts of Wales: some are found on the

cliffs of Dover, and a few in Scotland. In a wild state it feeds chiefly on insects and berries. It is easily tamed, becomes extremely docile, and is very fond of being caressed, by those to whom it shews an attachment, but its shrill notes and mischievous qualities render it sometimes a troublesome inmate. It also becomes bold and pugnacious, and resents an affront with violence and effect, by both bill and claws. It has a great aversion to strangers. Like the tame Jack-Daw it is fond of glittering objects, and is equally mischievous, active, and restless. It pries into and examines every thing, and is perpetually in search of insects. It soon learns to eat raw or dressed meat, bread, and soft grain, but will not eat common worms.

> ....."How fearful
> And dizzy 'tis, to cast one's eyes so low!
> The crows and choughs that wing the midway air,
> Shew scarce so gross as beetles."



THE CHATTERER.

SILK TAIL, OR WAXEN CHATTERER.

(*Bombycilla Garrula*, Temm.—*Grand-jaseur*, Temm.)

THIS beautiful bird is about eight inches in length. Its bill is black, and has a small notch at the end; the eyes, which are black and shining, are placed in a band of black, passing from the base of the bill to the hinder part of the head; throat black; the feathers on the head long, forming a crest; all the upper parts of the body are of a reddish ash; breast and belly inclining to purple; the vent and tail coverts in some, nearly white: in others, the former reddish chesnut, the latter ash-grey; the tail feathers are black, tipped with pale yellow; the quills black, the third and fourth

tipped on their outer edges with white, the five following with straw colour, but in some bright yellow; the secondaries are tipped with white, each being pointed with a flat horny substance of a bright vermillion. These appendages vary in different subjects; one in our possession had eight on one wing and six on the other. The legs are short and black. The female has only four or five of the second quills tipt with the red cartilaginous appendages, and the young birds previous to their first moult are without them altogether.

This rare bird visits our island only at uncertain intervals. In the years 1790, 1791, and 1803, several were taken in Northumberland and Durham, in the month of November, and many have appeared in different years since that time. Their summer residence is the northern parts of Europe, within the arctic circle, whence they spread themselves into other countries, where they remain during winter, and return in the spring to their usual haunts. Their general food is berries and insects: one which we saw in a state of captivity was fed chiefly with hawthorn and ivy berries, but from the difficulty of providing it with these, and perhaps other kinds of its natural food, it soon died. Its breeding place is not well ascertained. Only this species of the Chatterer is recognised as a British bird; the same may be said of the two genera next in succession.

THE ROLLER.

(Coracias Garrula, Linn.—*Rollier vulgaire*, Temm.)

THIS rare bird is distinguished by a plumage of exquisite beauty; it vies with the Parrot in an assemblage of the finest shades of blue and green, mixed with white, and heightened by the contrast of graver colours, from which perhaps it has been called the German Parrot, although in every other respect it quite differs from that bird, and seems rather to claim some affinity with the Crow or the Shrike. It is about the size of the Jay, being somewhat more than twelve inches in length. The bill is black, beset with short bristles at the base; the eyes are surrounded with a ring of naked yel-

low skin, and behind them is a kind of wart; the head, neck, breast, and belly, are of a light pea green; the back and scapulars reddish brown; the ridge of the wings and upper coverts rich deep blue; the greater coverts pale green; the quills dusky, inclining to black, and mixed with deep blue; the rump blue; tail somewhat forked; the lower parts of the feathers are dusky green, middle parts pale blue, tips black; the legs short and of a dull yellow.

This is the only species found in Europe; it is very common in some parts of Germany, but so rare in this country as hardly to deserve the name of a British bird. The author of the British Zoology mentions two shot in England, and these probably were stragglers.* The above drawing was from a stuffed specimen in the Wycliffe Museum.

The Roller is wilder than the Jay, and frequents the thickest woods; it builds chiefly on birch trees. Buffon says it is a bird of passage, and migrates in the months of May and September. In those countries where it is common, it is said to fly in large flocks in the autumn, and is frequently seen in cultivated grounds, with Rooks and other birds, searching for worms, small seeds, roots, &c.; it likewise feeds on berries, caterpillars, and insects, and in cases of necessity, on young frogs, and even carrion. The female differs very much from the

* One of these birds was shot in Bromley-hope, near Bywell, in May, 1818; and another near Dalton, in Furness, on the 26th of May, 1827. Were it not for the strange and wicked propensity in mankind to *kill*, there is no saying what the number of strange visitants to this country might amount to, of birds, admirable for the beauty of their plumage and song.

male; her bill is thicker, and the head, neck, breast, and belly, are of a chesnut colour, inclining to ash-grey. The young ones do not attain their brilliant colours till the second year.

This bird is remarkable for making a chattering kind of noise, by which it has obtained the name of Garrula.

THE GOLDEN ORIOLE.

GOLDEN THRUSH,—EDWARDS.

(*Oriolus Galbula*, Linn.—*Loriot vulgaire*, Temm.)

THE Golden Oriole is about the size of the Blackbird, but its bill is somewhat larger and stronger; it is rather elevated and arched, and slightly notched at the tip, and, as well as the irides, is reddish; a patch or stroke of black covers the space between the corners of the mouth and the eyes, and this spot is thinly beset with a few hairs. The whole plumage, excepting the wings and tail, is pure yellow; the two latter are black, but are marked as follows:—The edge of the wing at the *alula spuria*, is yellow, with a spot or patch of that colour below, on the tips of the first series of the primary quills, or second bastard wing. The first quill of the primaries is remarkably short, the second shorter than the third, and both the former are wholly black; the third and fourth are slightly edged with

yellow on part of their outer webs; all the rest of the quills are more or less slightly tipped with yellow, and glossed like satin on their under sides. The tail consists of twelve feathers; the two middle ones black, slightly tipped with yellow; all the rest more or less deeply marked with that colour, from their tips upwards. The legs are short, and, as well as the toes, black, with the undersides wide or spread out, and having rather a coarse appearance; claws hooked and strong. The plumage of the female differs from that of the male. Where he is yellow, she is of a dull olive green; her wing coverts, secondary quills, and upper parts of the tail feathers, partake of the same colour, but are much darker; the quills and lower ends of the tail feathers are dusky, and, as well as the former, are all tipped, less or more, with pale dull yellow. The skin of the male was presented to this work by G. T. Fox, Esq., the bird was shot as it was approaching our shore in the English Channel.* A pair, male and female, were also lent for the same purpose, by the Honourable Mr. Liddell, and from these and the foregoing, our description and figure were taken. These birds are rare visitants in this country; but they are often met with in the southern parts of Europe in the summer season. This species, as well as some others of the tribe, seem to partake of a middle nature between the Orioles and Thrushes, and Buffon has placed them as a connecting link before the latter.

* We have also seen a female, which was taken in the latter part of the spring, much spent, in a garden at Tynemouth.

THE STARLING.*

STARE.

(*Sturnus vulgaris*, Linn.—*Étourneau vulgaire*, Temm.)

LENGTH somewhat less than nine inches. The bill is straight, sharp-pointed, and of a yellowish brown; in old birds deep yellow; the nostrils are surrounded by a prominent rim; the eyes are brown: the whole plumage dark, glossed with

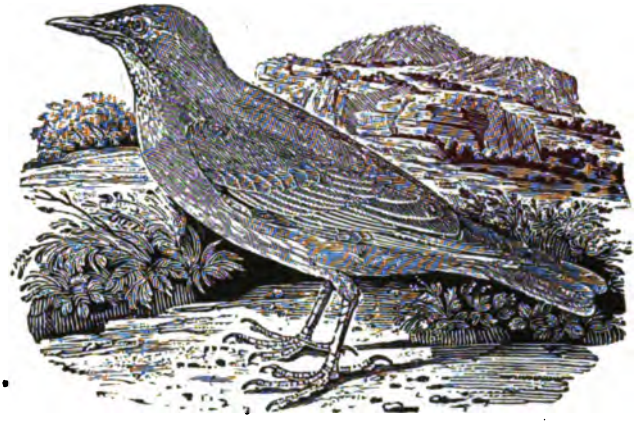
* From the striking similarity, both in form and manners, observable in the Starling, and those more immediately preceding, we had no scruple, in former editions of this work, in removing it from the usual place in the old passerine order, to the Pies, as it evidently forms a connecting link between them, and in a variety of points seems equally allied to both.

green, blue, purple, and copper, but each feather is marked at the end with a pale yellow spot; the wing coverts are edged with yellowish brown; the quill and tail feathers dusky, with light edges: the legs are reddish brown.

Few birds are more generally known than the Starling, it being an inhabitant of almost every climate; and as it is a familiar bird, and easily trained in a state of captivity, its habits have been more frequently observed than those of most other birds. They make an artless nest in the hollows of trees, rocks, or old walls, and sometimes in cliffs overhanging the sea; lay four or five eggs, of a pale greenish ash: the young are dusky brown till the first moult. In the autumn they fly in vast flocks, and may be known at a great distance by their whirling mode of flight, which Buffon compares to a sort of vortex, in which the collective body performs an uniform circular revolution, and at the same time continues to make a progressive advance. The evening is the time when the Starlings assemble in the greatest numbers, and, it is said, betake themselves to the fens and marshes, where they roost among the reeds: they chatter much in the evening and morning, both when they assemble and disperse. So attached are they to society, that they not only join those of their own species, but also birds of a different kind, and are frequently seen in company with Redwings, Fieldfares, and even with Crows, Jack-Daws, and Pigeons. Their principal food consists of worms, snails, and caterpillars; they are likewise accused of sucking the eggs of other birds; they eat various kinds of grain, seeds, and berries, and are said to

ASHMOLEAN OXFORD MUSEUM

be particularly fond of cherries. In a confined state they eat small pieces of raw flesh, bread soaked in water, &c., are very docile, and may easily be taught to repeat short phrases, or whistle tunes with great exactness, and are capable of imitating the notes of other birds.



THE YOUNG STARLING.

In a former edition this bird was described as the Brown Starling, or Solitary Thrush, since then the author has clearly ascertained it to be the young of the common Starling before it had attained its adult plumage. Its upper parts are deepish brown: the under parts dull brown, variously mottled and streaked with white.

THE ROSE-COLOURED STARLING.

(Pastor Roseus, Temm.—*Martin rosclin*, Temm.)

Is about the size of the Starling. The bill is blushed with red, and slightly notched at the tip, whence, to the corners of the mouth, it is nearly an inch and a quarter long; the irides are dark hazel. Length about nine inches; weight rather more than two ounces and a half. The feathers on the head are long forming a silky looking crest, and those on the fore part of the neck partake of the same appearance. The head, crest, neck, wings, tail, and upper coverts, are black, glossed with shades of blue, purple, and green: the back, rump, breast, and belly, pale rose red. The tail consists of twelve feathers: the middle ones somewhat shorter than those on the outsides; its under

coverts are black, very slightly edged and tipped with white. The legs, which are strong, are reddish; claws pale brown.* This beautiful bird is a rare visitant in this country.† It is found in various parts of Europe, Asia, and Africa, and in most places is migratory. It seems to prefer the warmer climates. It is said to be fond of locusts, and frequents the places where those destructive insects abound, on which account it is held sacred by the inhabitants.

* The plumage of the yearlings, according to Temminck, shows none of the colours of the old birds, the upper parts being of a uniform isabelle brown, the wings and tail brown, throat and middle of the belly white; the rest of the under parts greyish brown, and no appearance of crest on the head.

† A pair of them were shot in the summer of 1817, in a tanyard, in Newcastle; and another male and a young bird were shot out of a flock, at North Sunderland, in the month of July, 1817. We were favoured by the Hon. Mr. Liddell, with the specimen from which the foregoing figure was drawn.

Insectivorous Birds.*

THE birds of this group are distinguished by their lively and active dispositions, their beautiful plumage, and delightful melody. Of this order consist those numerous families, which, universally diffused throughout every part of the known world, people the woods, the fields, and the margins of rivers, and every where enliven, diversify, and adorn the face of nature. These are not less conspicuous for their usefulness, than for their numbers and variety: they are of infinite advantage in the economy of nature, in destroying myriads of noxious insects, which would otherwise teem in every part of the animal and vegetable systems, and would pervade and choke up all the avenues of life and health.

The characters of this order, which are as various as their habits and dispositions, will be best seen in the description of each particular species. The greater number of them are remarkable for the softness and delicacy of their bills; several of the species feed occasionally on berries, but their food consists principally of small worms, insects, the larvæ and eggs of insects, which they find deposited in immense profusion on the leaves and bark of trees, in chinks and crevices of stones, and

* This order consists of the following British genera, viz., Lanius, Muscicapa, Turdus, Cinclus, Sylvia, Saxicola, Accentor, Motacilla, Anthus.

even in small masses on the bare ground, so that there is hardly a portion of matter that does not contain a plentiful supply of food for this diligent race of beings.

"Full nature swarms with life;
"The flowery leaf
"Wants not its soft inhabitants. Secure
"Within its winding citadel, the stone
"Holds multitudes. But chief the forest boughs
"That dance unnumber'd to the playful breeze,
"The downy orchard, and the melting pulp
"Of mellow fruit, the nameless nations feed
"Of evanescent insects."

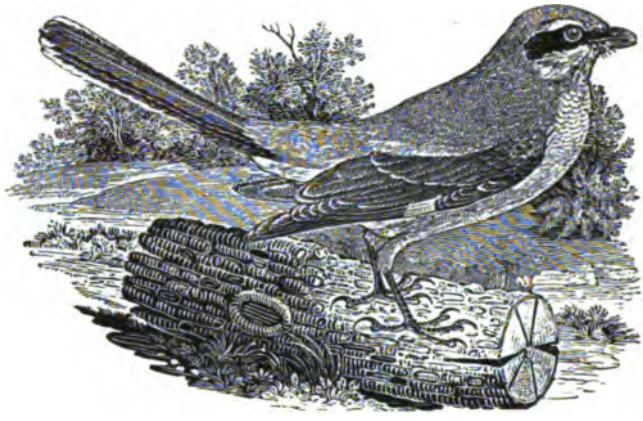
Of the Shrike.

THIS family of birds, though they are small, and of a delicate form, yet their courage, their appetite for blood, and their hooked bill, would seem to entitle them to be ranked with the boldest and the most sanguinary of the rapacious tribe. This genus has been variously placed in the systems of naturalists; it has been classed with the Falcons, with the Pies, and it has been ranked, especially by the later continental writers, with the harmless and inoffensive tribes of the Passerine kind, to which, indeed, in outward appearance at least, it bears some resemblance. Conformably, however, with what seemed to be the most natural arrangement, it was, in former editions of this work, placed in the rear of those birds which live by rapine and plunder; and, like most of the connecting links in the great chain of nature, it will be found to possess somewhat of a middle quality, partaking of those which are placed on each side of it, and making thereby an easy transition from the one to the other.

The Shrike genus is distinguished by the following characteristics: the bill is strong, straight at the base, and hooked or bent towards the end; the upper mandible is notched near the tip, and the base is furnished with bristles; it has no cere; the tongue is divided at the end; the outer toe is connected to the middle one as far as the first joint. To these exterior marks may be added,

that it possesses the most undaunted courage, and will attack birds much larger and stronger than itself, such as the Crow, the Magpie, and most of the smaller kinds of Hawks: if any of these should fly near the place of its retreat, the Shrike darts upon the invader with loud cries, and drives it from the nest. The parent birds will sometimes join on such occasions; and there are few birds that will venture to abide the contest. Shrikes will chase all the small birds upon the wing, and sometimes will attack Partridges, and even young Hares. Thrushes, Blackbirds, and such like, are their common prey; they fix on them with their talons, split the skull with their bill, and feed on them at leisure.

There are three kinds found in this kingdom, of which the following is the largest.



THE ASH-COLOURED SHRIKE.

GREATER BUTCHER BIRD.

(*Lanius Excubitor*, Linn.—*Pie-grièche grise*, Temm.)

THE length about ten inches. Its bill is black, and furnished with bristles at the base: the upper parts of its plumage pale blue ash; under parts white; a black stripe passes through each eye; the greater quills are black, with a large white spot at the base, forming a bar of that colour across the wing; the lesser quills are white at the tips; the scapulars white; the two middle feathers of the tail black; the next on each side are white at the ends, gradually increasing to the outermost, which are nearly all white; the whole, when the tail is spread, forms a large oval spot of black; the legs are black. The female differs little from the male; she lays six eggs, of a dull olive green, spotted at the end with black.

This bird is rarely found in the cultivated parts of the country, preferring mountainous wilds, among furze and thorny thickets. Buffon says it is common in France, where it continues all the year: it is met with likewise in Russia, and various parts of Europe; it preys on small birds, which it seizes by the throat, and after strangling, fixes them on a sharp thorn, and tears them in pieces with its bill. When kept in a cage, it sticks its food against the wires before it will eat it. It is said to imitate the notes of the smaller singing birds, thereby drawing them nearer its haunts, in order more securely to seize them.

The foregoing figure and description were taken from a very fine specimen, for which this work is indebted to the late Major H. F. Gibson, of the 4th dragoons.

THE WOODCHAT.

(Lanius rufus, Linn.—*Pie-grièche rousse*, Temm.)

THE bill is dark, tinged with blue, notched at the tip, and beset with bristles at the base, where a small spot of dirty white partly extends from the nostrils to the eyes, which are hazel; the fore part of the head, over the eyes and auriculars, and a stripe falling down on the sides of the neck and joining the shoulder feathers, are black; the lesser coverts nearly the same: a patch of white is formed at the base of the primaries: the secondaries are tipped with dull white; the tail dusky; the coverts and rump the same, but mixed with white; the first three outside feathers are white at the base and tips, and the outside one, which is shorter than the rest, is white on the outer web. The throat, fore part of the neck, and the breast, are dingy white, the belly and vent the same, but partaking a little of dull yellow; the hinder part of the head and

neck is bright reddish chesnut; the scapulars are white; the back dark ash: legs dark; claws curved and short.

There has been much difference of opinion, since the time of Edwards, respecting the Woodchat. Buffon supposes it a variety of the Red-backed Shrike. Pennant, Latham, and Montagu give it a place as a distinct species; so does Temminck, but this country is not mentioned by him as one of its *habitats*. We give the figure, therefore, rather with the view of assisting naturalists, than of offering any decided opinion of our own.

The figure of this bird was taken from a fine specimen in the private collection of Mr. Leadbeater, of the British Museum.

THE RED-BACKED SHRIKE.

FLUSHER, OR LESSER BUTCHER BIRD.

(*Lanius Collurio*, Linn.—*Pie-grièche écorcheur*, Temm.)

THIS bird is seven inches and three-quarters long, breadth twelve inches and a quarter. The bill is black; irides hazel; the head and lower part of the back light grey; the upper part of the back and coverts of the wings are bright rusty red; the breast, belly, and sides of a fine pale rose or bloom colour; throat white; a stroke of black passes from the bill through each eye; the two middle feathers of the tail are black, the others white at the base; the quills are brown; the legs black.

The manners of this species are similar to those of the ash-coloured Shrike: it frequently preys on young birds, which it takes in the nest; it likewise

feeds on grasshoppers, beetles, and other insects. It also is said to imitate the notes of other birds, in order the more surely to decoy them. When sitting on the nest, the female soon discovers herself at the approach of any person, by her loud and violent outcries. She builds in hedges or low bushes, and lays six eggs, marked with a reddish brown circle, formed of spots, toward the larger end.

THE FEMALE RED-BACKED SHRIKE.

THE above was drawn from a Shrike presented by Mr. Wm. Proctor, of Durham. It was shot by him on the 10th of September, 1824. The length is seven inches; breadth eleven; weight rather exceeding an ounce. The bill is dark brown, tinged with lead colour, distinctly notched, and beset with bristles at the base; irides dark hazel; brow dull pale brown; the head and upper parts of the body reddish or rusty brown, each feather fringed with a lighter colour, and barred in the middle with black curved or waved lines; the auriculars are deeper brown, and spotted or barred with black; the lower part of the back and rump are of a paler shade than the back; the tail coverts are rusty red; the tail is nearly the same colour, the two middle feathers plain, the two outer ones edged with dull white; the rest have a black spot near the ends, and are tipped with white; the

greater coverts and secondaries are deep brown, black in the middle, with pale edges, and tips white; the primaries are much the same, but of a darker cast; the under parts are sullied white, delicately barred on the breast and sides with dark brown; the thighs mottled the same; the legs dark lead blue. The gizzard was full of the remains of insects, such as the legs of earwigs and beetles.

Of the Flycatchers.

OF the birds which constitute this division, we find only two species that inhabit this island, and these are not numerous. The useful instincts and propensities of this little active race are confined chiefly to countries under the more immediate influence of the sun, where they are of infinite use in destroying those numerous swarms of noxious insects, engendered by heat and moisture, which are continually upon the wing. These, though weak and contemptible when individually considered, are formidable by their numbers, devouring the whole produce of vegetation, and carrying in their train the accumulated ills of famine and pestilence. Thus, to use the words of an eminent naturalist,* "we see, that all nature is balanced, and the circle of generation and destruction is perpetual! The philosopher contemplates with melancholy this seemingly cruel system, and strives in vain to reconcile it with his ideas of benevolence; but he is forcibly struck with the nice adjustment of the various parts, their mutual connection and subordination, and the unity of plan which pervades the whole.

* Buffon.

THE SPOTTED FLYCATCHER.

BEAM BIRD.

(*Muscicapa Grisola*, Linn.—*Gobe-mouche gris*, Temm.)

LENGTH nearly five inches and three-quarters; bill broad, flatted, and wide at the base, where it is beset with a few short bristles; a ridge runs along the upper mandible; both that and the under one are dusky at the tips, the latter is yellowish towards the base; inside of the mouth yellow: all the upper plumage is of a mouse colour, darkest on the wings and tail; head and neck more or less obscurely spotted with dark brown; the wing coverts, secondary quills, and scapulars, also dark brown edged with dingy white; under parts very pale ash, or lint coloured white, tinged with rufous on the sides and breast, which latter is marked with streaks of brown: the legs are short, and darkish.

The Flycatcher, of all our summer birds, is the most mute. It visits this island in the spring, and disappears in September. The female builds her nest commonly in gardens, on any projecting stone in a wall, or on the end of a beam, screened by the leaves of a vine, sweet-briar, or woodbine, and sometimes close to the post of a door, where people are going in and out all day long. The nest is rather carelessly made; it is composed chiefly of moss and dried grass, mixed in the inside with some wool, and a few hairs. She lays four or five eggs, of a dull white, closely spotted and blotched with rusty red. This bird feeds on insects, for which it sits watching on a branch or on a post, suddenly dropping down upon them, and catching them on the wing, and immediately rising, returns again to its station to wait for more. After the young have quitted the nest, the parent birds follow them from tree to tree, and watch them with the most sedulous attention. They feed them with the flies which flutter among the boughs beneath; or pursuing their insect prey, with a quick irregular kind of flight, like that of a butterfly, to a greater distance, they immediately return as before described.

THE PIED FLYCATCHER.

COLDFINCH.

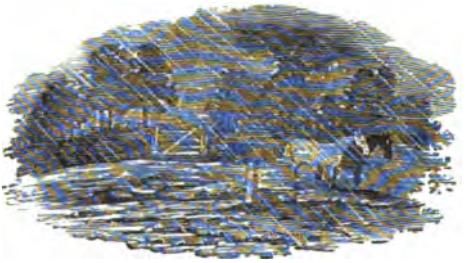
(*Muscicapa Luctuoso*, Temm.—*Gobe-mouche bec-figue*, Temm.)

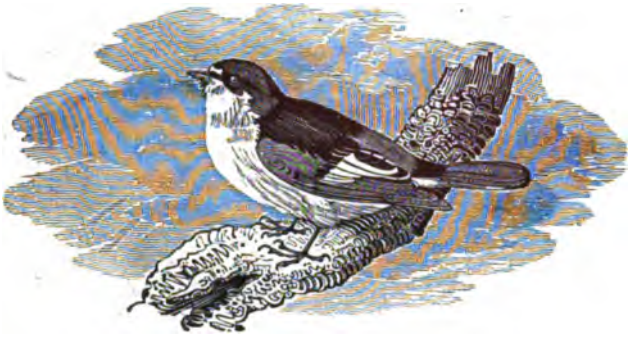
LENGTH nearly five inches. Bill black; eyes hazel; forehead white; the top of the head, the back, and the tail black; the rump is dashed with ash; wing coverts dusky, greater coverts tipped with white; the exterior sides of the secondary quills are white; as are also the outer feathers of the tail; all the under parts, from the bill to the tail, are white; legs black. The female is much smaller, but longer tailed than the male; she is brown where he is black; she likewise wants the white spot on the forehead.

This bird is no where common; it is said to be most plentiful in Yorkshire, Lancashire, and Derbyshire. Since the cut was finished, which was done from a drawing presented to this work, we have been favoured with a pair of these birds, shot at

Benton, in Northumberland: we suppose them to be male and female, as one of them wanted the white spot on the forehead; in other respects it was similar to the male; the upper parts in both were black, obscurely mixed with brown; the quill feathers dark reddish brown: tail dark brown, the exterior edge of the outer feathers white; legs black.

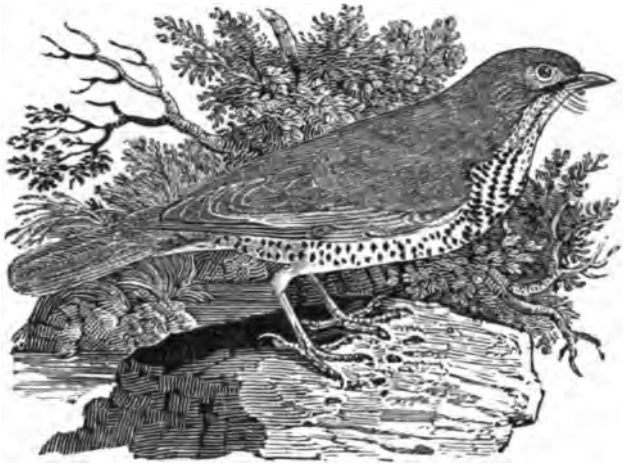
The nest of this bird, with its young, was found in the hole of a tree, in Axwell Park, June 18, 1801: the parent birds, but particularly the male, were extremely expert in catching the small flies with which they incessantly feed their young. The female always jerked up her tail after she had performed that office.





THE PIED FLYCATCHER.

THE figure here given was taken from a bird shot in the middle of May, by the late Rev. Ralph Brocklebank, of Corbridge-on-Tyne, who said it is only to be seen in the spring and summer months. A distinct ridge runs along the upper mandible; and in plumage it agrees with the foregoing description of the birds sent from Benton, but was of a lesser size, and except a ridge on the bill, it resembled a Titmouse.



THE MISSEL THRUSH.

MISSEL BIRD OR SHRITE.

(*Turdus viscivorus*, Linn.—*Merle draine*, Temm.)

LENGTH eleven inches and three-quarters, breadth above eighteen. The bill is dusky; the base of the lower mandible yellow; the eyes hazel; the head, back, and lesser coverts of the wings olive brown, the latter tipped with dull brownish white; the lower part of the back and rump tinged with yellowish brown and ash; the cheeks are yellowish white, spotted with brown; the breast and belly pale yellow, marked with larger spots of very dark brown; quills brown, with pale edges; tail feathers the same; the three outermost tipped with white; the legs are yellow; claws black; builds mostly on low trees, or on high bushes, and lays four or five

eggs of a greenish blue, marked with reddish spots. The nest is made of moss, leaves, &c., lined with dry grass, and strengthened on the outside with small twigs. This species begins to sing early, often on the turn of the year in blowing showery weather, whence, in some places it is called the Stormcock. Its note of anger is very loud and harsh, between a chatter and shriek, which accounts for some of its names. It feeds on various kinds of berries, particularly those of the mountain ash, and the mistletoe. It was formerly believed that the latter plant was only propagated by the seed which passed the digestive organs of this bird, whence arose the proverb "*Turdus malum sibi cacat;*" it likewise feeds on caterpillars and insects, with which it also feeds its young. This bird is found in various parts of Europe, and is said to be migratory in some places, but continues in England the whole year, and frequently has two broods.

THE FIELDFARE.

(*Turdus pilaris*, Linn.—*Merle litorne*, Temm.)

THIS is somewhat less than the Missel Thrush; length ten inches. The bill is yellow; each corner of the mouth is furnished with a few black bristly hairs; eyes light brown; the top of the head, hinder part of the neck, the lower part of the back and the rump are light bluish ash, the former spotted with black; the back and coverts of the wings are deep hoary brown; the throat and breast yellow, regularly spotted with black; the belly and thighs yellowish white; tail brown, inclining to black; the legs dusky yellowish brown; in young birds yellow.

We have seen a variety of this bird, of which the head and neck were yellowish white; the rest of the body nearly of the same colour, mixed with a

few brown feathers; the spots on the breast were faint and indistinct; the quill feathers perfectly white, except one or two on each side, which were brown; the tail was marked in a similar manner.

The Fieldfare is only a visitant in this island, making its appearance about the beginning of October, in order to avoid the rigorous winters of the north, whence it sometimes comes in great flocks, according to the severity of the season, and leaves us about the latter end of February or the beginning of March, and retires to Russia, Sweden, Norway, and as far as Siberia and Kamtschatka. Buffon observes that they do not arrive in France till the beginning of December, that they assemble in flocks of two or three thousand, and feed on haws and other berries; they likewise eat worms of various kinds.

Fieldfares seem of a more sociable disposition than the Throstles or the Missels: they are sometimes seen singly, but in general form very numerous flocks, and fly in a body; and though in open weather they often spread themselves through the fields in search of food, they seldom lose sight of each other, but, when alarmed, fly off, and collect together upon the same tree.

THE THROSTLE.

THRUSH, GREY BIRD, OR MAVIS.

(*Turdus Musicus*, Linn.—*Merle grive*, Temm.)

THIS is larger than the Redwing, but much less than the Missel, to which it bears a strong resemblance both in form and colours. A small notch is observable at the end of the bill, which belongs to this and every bird of the Thrush kind; throat white, and the spots on the breast more regularly formed than those of the Missel Thrush, and conical; inside of the wings and mouth yellow, as are also the legs; claws strong and black.

The Throstle is distinguished among our singing birds by the clearness and fullness of its note; it charms us not only with the sweetness, but the variety of its song, which it begins early in the

spring, and continues during part of the summer. This bold and pleasing songster, from his high station, seems to command the concert of the grove, whilst in the beautiful language of the poet,

"The Jay, the Rook, the Daw,
"And each harsh pipe (discordant heard alone)
"Aid the full concert, while the Stock-Dove breathes
"A melancholy murmur through the whole."

The female builds her nest generally in bushes; it is composed of dried grass, with a little earth or clay intermixed, and lined with rotten wood; she lays five or six eggs, of a pale blue colour, marked with dusky spots.

Although this species is not considered with us as migratory, it has, nevertheless, been observed in some places in great numbers during the spring and summer, where not one was to be seen in the winter, which has induced an opinion that they either shift their quarters entirely, or take shelter in the more retired parts of the woods. The Throstle is migratory in France: Buffon says that it appears in Burgundy about the end of September, before the Redwing and Fieldfare, and that it feeds upon the ripe grapes, and sometimes does much damage to the vineyards. The females of all the Thrush kind are very similar to the males, and differ chiefly in a less degree of brilliancy in the colours.

THE REDWING.

WIND THRUSH.

(*Turdus Iliacus*, Linn.—*Merle mauvis*, Temm.)

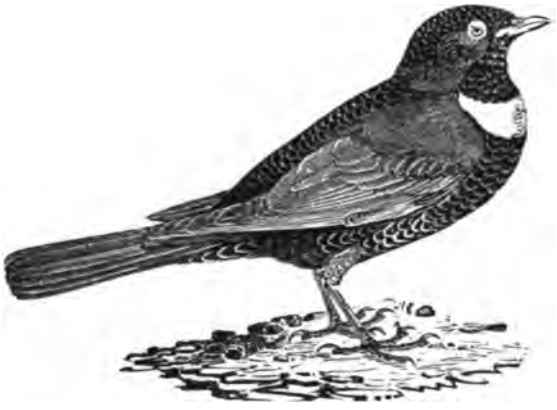
Is about eight inches in length. Bill dark brown; eyes deep hazel; plumage in general similar to that of the Thrush, but a white streak over the eye distinguishes it from that bird; belly not quite so much spotted; sides of the body and the feathers under the wings tinged with red, which is its peculiar characteristic; whence also its name.

These birds make their appearance a few days before the Fieldfare,* and are generally seen with them after their arrival; they frequent the same

* A Redwing was taken up November 7th, 1785, at six o'clock in the morning, which, on its approach to land, had flown against the light-house at Tynemouth, and was so stunned that it fell to the ground and died soon after; the light most probably had attracted its attention.

places, eat the same food, and are very similar to them in manners. Like the Fieldfare, they leave us in the spring, for which reason their song is almost unknown to us, but it is said to be very pleasing. In Sweden they perch on high trees in the forests, and have a fine note in the breeding season. The female builds her nest in low bushes or hedges, and lays six eggs, of a greenish blue colour, spotted with black.*

* This and the former are delicate eating: the Romans held them in such estimation that they kept thousands of them together in aviaries, and fed them with a sort of paste made of bruised figs and flour, and various other kinds of food, to improve the delicacy and flavour of their flesh: these aviaries were so contrived as to admit light barely sufficient to direct them to their food; every object which might tend to remind them of their former liberty was carefully kept out of sight, such as the fields, the woods, the birds, or whatever might disturb the repose necessary to their improvement. Under this management these birds fattened, to the great profit of their proprietors, who sold them to the Roman epicures for three denarii, or about two shillings sterling each.



THE RING OUZEL.

(*Turdus torquatus*, Linn.—*Merle à plastron*, *Temm.*)

THIS bird very much resembles the Blackbird; its general colour is dull black; each feather margined with ash-grey: the bill is dusky; corners of the mouth and inside yellow; eyes hazel; the breast is distinguished by a crescent of pure white, which almost surrounds the neck, and from which it derives its name: the legs are dusky brown. The female differs in having the crescent on the breast much less conspicuous, and, in some birds, wholly wanting, which has caused some authors to consider it as a different species, under the name of the Rock Ouzel.

Ring Ouzels are found in various parts of this kingdom, chiefly in the wilder and more mountainous districts; with this exception, their habits are similar to those of the Blackbird; the female

builds her nest in the same manner, and in similar situations, and lays four or five eggs of the same colour: they feed on insects and berries of various kinds, are fond of grapes, and Buffon observes, during the season of vintage are generally fat, and at that time are esteemed delicious eating. The same author says, that in France they are migratory. In some parts of this kingdom they have been observed to change places, particularly in Hampshire, where they are known generally to stay not more than a fortnight at one time. The foregoing representation was taken from one killed near Bedlington, Northumberland.

THE BLACKBIRD.

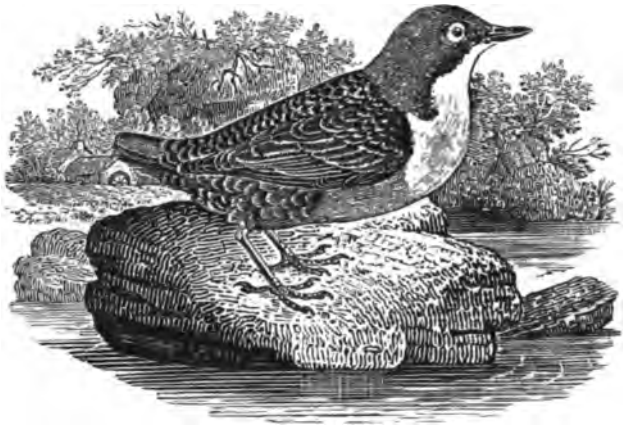
BLACK OUZEL.

(*Turdus Merula*, Linn.—*Merle noir*, Temm.)

THE length of the Blackbird is generally about ten inches. Its plumage is altogether black; the bill, inside of the mouth, and edges of the eye-lids are yellow, as are also the soles of the feet; legs dirty yellow. The female is mostly deep brown, inclining to rust colour on the breast and belly; bill dusky, legs brown; her song is also very different, so that she has sometimes been mistaken for a bird of a different species.

The males, during the first year, resemble the females so much as not easily to be distinguished from them; but after that, they assume the yellow bill, and other distinguishing marks of their sex. The Blackbird is a solitary bird, frequenting woods

and thickets, chiefly evergreens, especially where there are perennial springs, which together afford it both shelter and subsistence. They feed on berries, fruits, insects, and worms; but never fly in flocks like Thrushes; they pair early, and begin to warble nearly as soon as any other songsters of the grove. They build in bushes or low trees, and lay four or five eggs, of a bluish green, marked irregularly with dusky spots. The young birds are easily tamed, and may be taught to whistle a variety of tunes. They are restless, and timorous birds, easily alarmed, and difficult of access; but they readily suffer themselves to be caught with bird-lime, nooses, and all sorts of snares. They are never kept in aviaries, but generally in cages apart; for, when shut up with other birds, they pursue and harass their companions unceasingly. In some counties of England this bird is called simply the Ouzel.



THE WATER OUZEL.

WATER CROW, DIPPER, OR WATER PIOT.

(*Cinclus Aquaticus*, Bechst.—*Cincle plongeur*, Temm.)

THE length of the Water Ouzel is about seven inches and a half from the point of the beak to the end of its tail, which is very short, and gives the bird a thick and stumpy appearance. The mouth is wide; the bill black, about three-quarters of an inch long: the upper mandible rather hollow in the middle, and bent a little downwards at the point: orbits white, irides hazel. The upper parts of the head and of the neck are deepish rusty brown; the back, rump, scapulars, wing coverts, belly, vent, and tail, are black; but each feather on these parts is distinctly edged with hoary grey. The breast, fore part of the neck and throat are of a snowy white; and the back and white on the belly and

breast are separated by a rusty brown. The legs and toes are short and strong, the scales pale blue, the hinder part and joints brown; the claws are curved, and the toes are distinctly parted, without any membrane between to join them.

This solitary species has hitherto held a place in this work amongst the water birds, although it has been classed in most systems with the Ouzels and Thrushes, to which it bears little or no affinity. Its manners and habits are also different from those birds, and are peculiar to itself. It is chiefly found in the high and mountainous parts of the country, and always by the sides of brooks and rocky rivers, but particularly where they fall in cascades, or run with great rapidity among stones and fragments of broken rocks; there it may be seen perched on the top of a stone in the midst of a torrent, in a continual dipping motion, or short courtesy often repeated, whilst watching for its food, which consists of small fishes and insects. The feathers, like those of the Duck tribe, are impervious to water, whereby it is enabled to continue a long time in that fluid without sustaining injury. But the most singular trait in its character is that of its possessing the power of walking, in quest of its prey, on the pebbly bottom of a river, and with the same ease as on dry land.* The female makes her nest in the banks of a rivulet,

* Being, from its specific gravity, much lighter than water, the circumstance of its walking so easily at the bottom of the water is doubted. Montagu admits his having seen it, but says, it appeared to tumble about in a very extraordinary manner, with its head downwards, as if pecking something; and, at the same time, using great exertion both with its wings and legs.

sometimes behind a water-fall when it overshoots a steep rock, and thus leaves a vacuum: it is nearly of the same form as that of a common Wren; she lays four or five eggs, which are white, lightly blushed with red.

Of the Warblers.

THIS very numerous family is composed of a great variety of kinds, differing in size from the Nightingale to the Wren, and not a little in their habits and manners. They are widely dispersed over most parts of the known world; some of them remain with us during the whole year; others are migratory, and visit us annually in great numbers, forming a very considerable portion of those numerous tribes of singing birds, with which this island so plentifully abounds. Some are distinguished by their flight, which they perform by jerks, and in an undulating manner; others by the whirring motion of their wings. The head in general is small; the bill is weak and slender, and beset with bristles at the base; the nostrils are small, and somewhat depressed: and the outer toe is joined to the middle one by a small membrane.

THE GRASSHOPPER WARBLER.

—MONTAGU:

GRASSHOPPER LARK—PENNANT.

(*Sylvia Locustella*, Lath.—*Bec-fin locustelle*, Temm.)

THIS bird is between five and six inches in length, and of a slender form. The tail is cuniform and rather long, as well as the legs; the wings short, reaching very little beyond the base of the tail. The irides are hazel; upper mandible dusky, the under one yellowish white towards the base: a brown streak passes from the bill to the eye, and a white one above it; the crown of the head, hinder part of the neck, shoulders, and upper part of the back are brown, with a slight tinge of olive, the middle of each feather dusky; the wings are nearly of the same colour, the feathers being dark in the middle, and edged with pale brown; the lower part of the back, upper tail coverts, and tail, are pale brown;

the throat and fore part of the neck are yellowish white, terminated by a few darkish spots on the upper part of the breast; the sides of the neck, and all the under parts are pale dingy yellow; legs nearly the same.

This bird is seldom seen, and is best known by the lengthened grinding, sibilous noise which it makes about the dusk of a still summer's evening. It artfully skulks among old furze bushes, or in the thickest brakes and hedges, from which it will not easily be forced away. We were favoured with the drawing from which our figure is taken, by Mr. R. R. Wingate, and also with a sight of its nest, which is composed of coarse dried grass, and about three inches in thickness, but very shallow; it contained five beautiful white eggs, closely freckled with carnation spots. Mr. W. gives the following account of the cunning manner in which it places its nest. Having long wished to get the eggs, he, in June, 1815, succeeded in *eyeing* the bird to the distant passage on the top of a whin bush, by which it entered and left its nest. This was built at the bottom of a deep narrow furrow or ditch, overhung by the prickly branches of the whin, and grown over with thick coarse grass, matted together year after year, to the height of about two feet; all which he was obliged to take away piecemeal, before he succeeded in gaining the prize.

THE SEDGE WARBLER.

OR SEDGE BIRD.

(Sylvia Phragmitis, Bechst.—*Bec-fin phragmite*, Temm.)

LENGTH five inches. Bill dusky; eyes hazel; crown of the head and back brown, with dusky streaks; rump tawny; cheeks brown; over each eye a light streak; wing coverts dusky, edged with pale brown, as are the quills and tail; throat, breast, and belly are white, the latter tinged with yellow; thighs yellow; legs dusky; the hinder claws much bent.

It frequents the sides of rivers and boggy places, where reeds and sedges grow, and builds there; the nest is made of dried grass, and tender fibres of plants, lined with hair, and usually contains five eggs of a dirty white, mottled and streaked with brown: it sings night and day, during the breeding time, imitating by turns the notes of various birds, from which it is also called the English Mock Bird. This and some others of the Warblers are so shy, that they will quit the nest if it be touched by any one.

THE REED WARBLER.

REED WREN, OR NIGHT WARBLER.

(*Sylvia Arundinacea*, Lath.—*Bec-fin des roseaux*, Temm.)

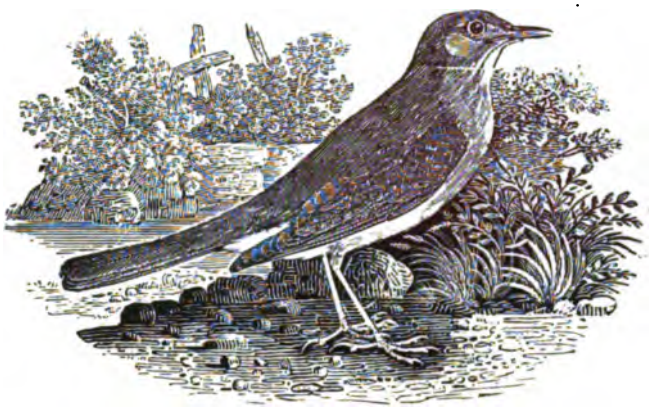
THE bill, from the tip to the feathers on the brow, is more than three-eighths of an inch long, the upper mandible is dusky with yellow edges, and tapered to a ridge on the middle, slightly notched at the tip, and has a few slight hairs at the sides of the mouth projecting over the gape: a lightish streak passes above the eyes; the cheeks and sides of the neck are pale brown, the rest of the head and all the upper plumage is brown, more or less tinged with olive: the quills and tail feathers are of a darker brown, with pale edges; the tail is rather longish, and the middle feathers are somewhat longer than the rest; the throat and fore part of the neck are white; the breast and

sides tinged with brown: the belly the same, but much lighter, the middle almost approaching to a silvery white. The legs and toes appear to have been of a brownish yellow. The stuffed specimen from which the above figure was made, was obligingly presented by Mr. Yarrell to the Newcastle Museum, in 1827.

This shy and solitary bird is seldom seen, as it keeps itself during the day mostly hidden among the coarse herbage, or the reeds and rushes which grow by the rills that ooze out of the moist or boggy grounds which it generally frequents. The author never but once saw what he believes to have been this bird, nor ever heard its song; but this last has been well described to him by others whose business led them to be out at the break of day. These, though unlearned naturalists, were keen observers, and the wild quadrupeds and birds in their neighbourhood did not escape notice, and among others this bird and its charming song. Their report was, that they never heard it sing except in the twilight of a summer's morning; but others are said to have heard it at the close of the evening.

From its being so seldom heard, it is believed that it does not visit this country every year. There can be little doubt that it is the very bird whose song has sometimes been mistaken in the north of England for that of the Nightingale.

Latham, who seems not to have known much about it, says it builds its nest among reeds, supported by three of their branches: it is of a downy texture; the eggs, five in number, are of a pale yellowish brown, speckled with minute spots.



THE NIGHTINGALE.

(Sylvia luscinia, Lath.—*Bec-fin rossignol*, Temm.)

THIS bird, so universally esteemed for the excellence of its song, is not remarkable for the variety or richness of its plumage. It is somewhat more than six inches in length The bill is brown, yellow on the edges at the base; eyes hazel; the whole upper part of the body is of a rusty brown, tinged with olive; the under parts pale ash, almost white at the throat and vent; the quills are brown, with reddish margins; legs pale brown. The male and female are very similar.

Although the Nightingale is common in this country, it never visits the northern parts of our island, and is but seldom seen in the western counties of Devonshire and Cornwall: it leaves us sometime in the month of August, and makes its regular return in the beginning of April; it is supposed, during that interval, to visit the distant regions of Asia; this is probable, as these birds do

not winter in any part of France, Germany, Italy, Greece, &c., neither does it appear that they stay in Africa, but are seen at all times in India, Persia, China, and Japan; in the latter country they are much esteemed for their song, and sell at great prices. They are spread generally throughout Europe, even as far north as Siberia and Sweden, where they are said to sing delightfully; they, however, are partial to particular places, and avoid others which seem as likely to afford them the necessary means of support. It is not improbable, however, that by planting a colony in a well-chosen situation, these charming songsters might be induced to haunt places where they are not at present seen: the experiment might easily be tried, and should it succeed, the reward will be great in the rich and varied song of this unrivalled bird. Milton gives us the following beautiful description.

> And the mute silence hist along,
> 'Lest Philomel will deign a song,
> In her sweetest, saddest plight,
> Soothing the rugged brow of night,
> While Cynthia checks her dragon yoke,
> Gently o'er the accustomed oak:
> Sweet bird that shunn'st the noise of folly,
> Most musical, most melancholy!
> Thee, chauntress, oft the woods among,
> I woo to hear thy even song.

Nightingales begin to build about the end of April or the beginning of May; they make their nest in the lower part of a thick bush or hedge; the female lays four or five eggs of a greenish brown colour. The nest is compcsed of dry grass

and leaves, intermixed with small fibres, and lined with hair, down, and other soft and warm substances. The business of incubation is entirely performed by the female, whilst the male, at no great distance, entertains her with his delightful melody: as soon, however, as the young are hatched, he leaves off singing, and joins her in the care of providing for them. These birds make a second hatch, and sometimes a third; and in hot countries they are said to have four.

The Nightingale is a solitary bird, and never unites in flocks like many of the smaller birds, but hides itself in the thickest parts of the bushes, and sings generally in the night: its food consists principally of insects, small worms, eggs of ants, and sometimes berries of various kinds. Though timorous and shy, they are easily caught; lime twigs and snares of all sorts are laid for them; and generally succeed. Young ones are sometimes brought up from the nest, and fed with great care till they are able to sing. It is with great difficulty that old birds are induced to sing after being taken; for a considerable time they refuse to eat, but by great attention to their treatment, and avoiding every thing that might agitate them, they at length resume their song, and continue it during the greater part of the year.

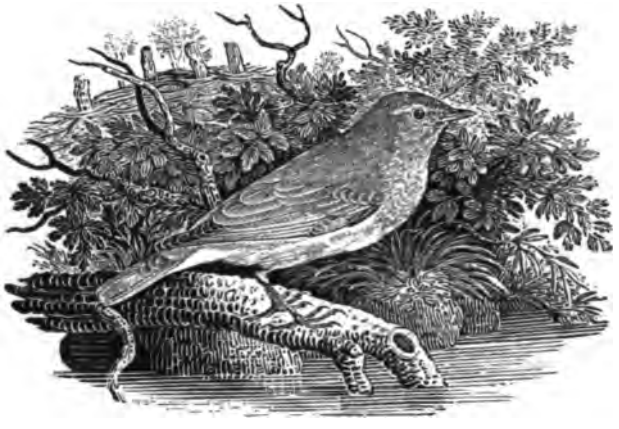
THE BLACK-CAP.

(*Sylvia Atricapilla*, Lath.—*Bec-fin à tête noire*, Temm.)

Is somewhat above five inches in length. The upper mandible is of a dark horn colour; the under one light blue, and the edges of both whitish; top of the head black; sides of the head and hinder part of the neck ash colour; back and wings olive grey; the throat, breast, belly, and vent more or less silvery white; the legs bluish, inclining to brown; claws black. The head of the female is of a dull rust colour.

The Black-cap visits us about the middle of April, and retires in September; it frequents gardens, and builds its nest near the ground, commonly among the branches of the Woodbine; it is very slightly made, and composed of the dried stems and curled roots of small grass, thinly interwoven with a very few hairs, and bound to the twigs with the cotton of plants; the inside of the nest is deep and round; the eggs, commonly five in number, are reddish

brown, sprinkled or marbled with spots of a much darker colour. During the time of incubation the male sits by turns, he likewise procures the female food, such as flies, worms, and insects. The Black-cap sings sweetly, and so like the Nightingale, that in Norfolk it is called the Mock-Nightingale; it also imitates the Thrush and the Blackbird. Our ingenious countryman, White, observes, that it has usually a full, sweet, deep, loud, and wild pipe, yet the strain is of short continuance, and its motions desultory; but when this bird sits calmly, and in earnest engages in song, it pours forth very sweet but inward melody, and expresses great variety of sweet and gentle modulations, superior, perhaps, to any of our warblers, the Nightingale excepted; and, while it warbles, its throat is wonderfully distended. Black-caps feed chiefly on flies and insects, but not unfrequently on ivy and other berries, and the seeds of the evonymus.

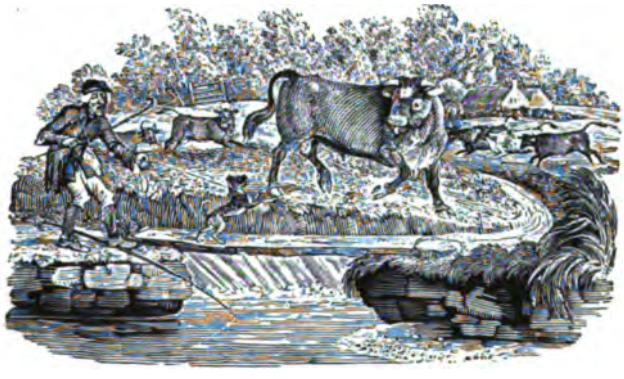


THE GARDEN WARBLER.

(*Sylvia Hortensis*, Bechst.—*Bec-fin Fauvette*, Temm.)

LENGTH about six inches. Bill pale brown; upper parts of the body brown, tinged with olive green; under parts dingy white, a little inclining to brown across the breast; quills dusky, with pale edges; tail dusky; over each eye is an indistinct whitish line: legs pale brown. The male and female are much alike. The eggs are dull white, irregularly marked with dusky spots. This bird frequents woods and thickets, has a sweet song resembling that of the Black-cap, and its general habits are much like that bird; it often secretes itself in the thickest parts of the bushes, where it may be heard but not seen. It is truly a mocking bird, imitating the notes of various kinds, generally beginning with those

of the Swallow, and ending with the song of the Blackbird. We have often watched with the utmost attention whilst it was singing delightfully in the midst of a bush close at hand, but have seldom been able to obtain a sight of it. Buffon says, "these pretty warblers arrive when the trees put forth their leaves, and begin to expand their blossoms; they are dispersed through the whole extent of our plains; some inhabit our gardens, others prefer the clumps and avenues; some conceal themselves among the reeds, and many retire to the midst of the woods."



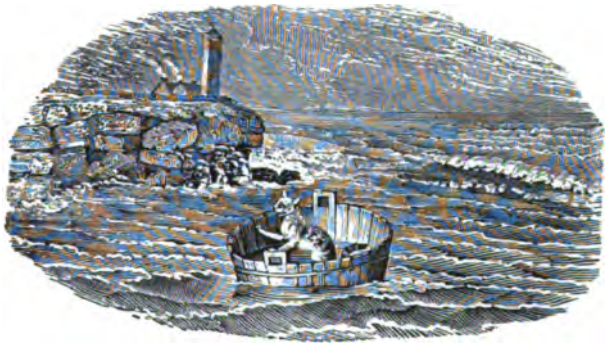
THE WHITE-THROAT.

(Sylvia Cinerea, Lath.—*Bec-fin grisette*, Temm.)

LENGTH about five inches and a half. Bill dark brown, lighter at the base; eyes dark hazel; the upper part of the head and back are reddish ash; throat white; lesser wing coverts pale brown; the greater dusky brown, with reddish margins; breast and belly silvery white; the wings and tail dusky brown, with pale edges, outer feathers white; legs pale brown. The breast and belly of the female are entirely white.

This bird arrives with the Redstart, Blackcap, &c., in the spring, and quits us in autumn about the same time that they do; it frequents thickets and hedges, and feeds on insects and wild berries. It builds in thick brakes or bushes, the nest is composed of fine dried grass, thinly lined with hair; the female lays five eggs, of a greenish white; sprinkled with darkish olive

spots, which become numerous and blotched at the thicker end. It is often heard in the midst of a thick covert to utter a pretty constant grating call of *cha, cha, cha,* which it leaves off as soon as it is disturbed, flitting before the passenger from bush to bush, singing as it flies along, and sometimes mounting up a little height into the air, as if it were attempting to imitate the Lark, both in its motions and song; but in these it falls greatly short, and its frequently repeated notes have but little melody.



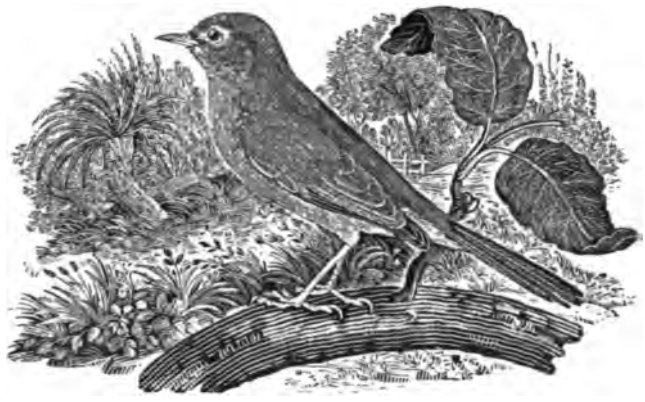
THE LESSER WHITE-THROAT.

(Sylvia Curruca, Lath.—*Bec-fin babillard*, Temm.)

THIS bird is of a slender shape, like the Willow Wren, and from its shy disposition, is not often seen. By those who have watched its motions, it is described as darting like a mouse through the interior branches of the brakes and underwoods, among which it shelters itself. Its length is four inches and seven-eighths, breadth seven inches and a quarter, weight six drachms. The irides are dark hazel; both mandibles are dark at the tips; the under one yellowish towards the base. The upper plumage is of a mouse coloured brown; the scapulars and quills nearly the same, edged with lighter brown; and the two outside feathers of the tail, with dull white; the under parts, from the chin to the vent, are more or less of a silvery white; legs, toes, and claws brown.

Our figure was taken from a bird which was shot in the boundary hedge of Newcastle Town Moor,

on the 2nd June, 1815, and presented to this work by Mr. R. R. Wingate. Its nest was built in a woodbine bush, about a yard from the ground; it was of a slight fabric, composed of the dried stems of small grass, and curled small roots, and very thinly interwoven or lined with a few hairs. The eggs, five in number, were white, spotted with brown, and intermixed with other spots of a pale bluish ash. They are somewhat less than those of the White-throat, and differently marked.



THE DARTFORD WARBLER.

(*Sylvia Provincialis*, Gmelin.—*Bec-fin pitchou*, Temm.)

THIS bird measures above five inches in length, of which the tail is about one half. The bill is rather long and slender, and a little bent at the tip; it is black, and whitish at the base; the eyes are reddish; eye-lids deep crimson; all the upper parts dark rusty brown, tinged with dull yellow; the breast, part of the belly, and thighs deep red, inclining to rust colour; the middle of the belly white; the bastard wing is also white; tail dusky, except the exterior web of the outer feather, which is white; legs yellow.

It seems to be a rare bird in this country, and owes its name, with us, to the accident of a pair of them having been seen near Dartford, in Kent, some years ago: they have since been observed in great numbers, and are supposed sometimes to winter with us. The above figure was taken from a Wycliffe specimen.

THE REDBREAST.

ROBIN REDBREAST, OR RUDDOCK.

(*Sylvia Rubecula*, Lath.—*Bec-fin rouge-gorge*, Temm.)

THIS general favourite is too well known to need a very minute description. The bill is slender and delicate; its eyes large, black, and expressive, and its aspect mild; the head and all the upper parts are brown, tinged with greenish olive; neck and breast of a fine deep reddish orange; a spot of the same colour marks its forehead; belly and vent dull white; legs dusky.

In spring the Redbreast retires to woods and thickets, where, with its mate, it prepares for the accommodation of its future family. During summer it is rarely to be seen. The nest is placed near the ground, by the roots of trees, or bushes, in the most concealed spot, and sometimes in holes of walls or old buildings, and is constructed of moss and dried leaves, intermixed with hair, and

lined with feathers; in order more effectually to conceal it, they cover it over with leaves, leaving only a narrow winding entrance under the heap. The female lays from five to nine eggs, of a dull white, marked with reddish spots. During the time of incubation, the male sits at no great distance, and makes the woods resound with his delightful warble; he keenly chases all the birds of his own species, and drives them from his little settlement; for it has never been known that two pairs of these birds, who are as faithful as they are amorous, were lodged at the same time in the same bush.* The Redbreast prefers the thick shade, where there is water; it feeds on insects and worms; but never eats them alive. It takes them in its bill and beats them against the ground till they cease to move: during this operation it frequently happens that the caterpillar is burst, and its entrails are shaken out, leaving only the body thus cleansed from all its impurities. Some ornithologists have ascribed this to the extreme delicacy of the bird in preparing its repast; others think that it is only an accidental consequence arising from the manner of putting its prey to death.

Although the Redbreast never quits this island, it performs a partial migration. As soon as the business of incubation is over, and the young are sufficiently grown to provide for themselves, he leaves his retirement,† and again draws near the

* Unum arbustum non alit duos erithacos.

† The Redbreast, as well as some other kinds of birds, visits the sea-shores in the autumn.

habitations of mankind; his well-known familiarity has attracted the attention and secured the protection of man in all ages; he haunts the dwelling of the cottager, and partakes of his humble fare; when the frost grows severe, and snow covers the ground he approaches the house, taps at the window with his bill, as if to entreat an asylum, which is always cheerfully granted, and with a simplicity the most delightful, hops round the house, picks up crumbs, and seems to make himself one of the family. Thomson has described the annual visits of this little guest, in the following lines:—

"The Redbreast, sacred to the household gods,
"Wisely regardful of th' embroiling sky,
"In joyless field and thorny thickets leaves
"His shivering mates, and pays to trusted man
"His annual visit. Half afraid, he first
"Against the window beats; then brisk alights
"On the warm hearth; then, hopping o'er the floor,
"Eyes all the smiling family askance,
"And pecks, and starts, and wonders where he is;
"Till, more familiar grown, the table crumbs
"Attract his slender feet."

The young Redbreast, when full feathered, may be mistaken for a different bird, being all over besprinkled with rust-coloured spots on a light ground; the first appearance of the red is about the end of August, but it does not attain its full colour till the end of the following month. Redbreasts are never seen in flocks, but always singly; and, when all other birds associate together, they still retain their solitary habits. As soon as the young birds have attained their full plumage,

they prepare for their departure from woods and thickets; but in thus changing their situation, they do not gather in flocks, but perform their journey singly, one after another, which is a singular circumstance in the history of this bird. Its general familiarity has occasioned it to be distinguished by a peculiar name in many countries: about Bornholm it is called Tomi Liden; in Norway, Peter Ronsmad; in Germany, it is called Thomas Gierdet; and with us, Robin Redbreast, or Ruddock.

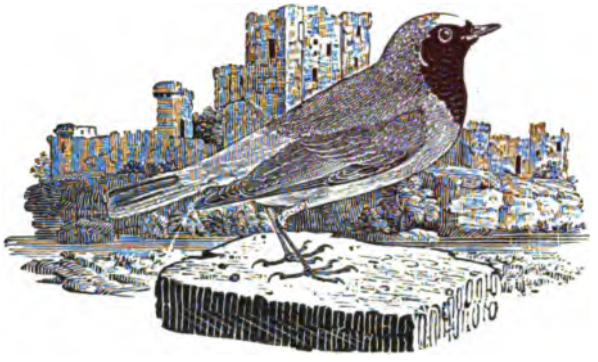
THE BLUE-THROATED ROBIN.

(Sylvia Suecica, Lath.—*Bec-fin gorge-bleue*, Temm.)

THIS bird, hitherto a stranger in this country, is similar in its size, figure, and upper plumage to our own engaging and familiar Robin Redbreast. A light streak passes over the eyes, otherwise the only striking difference between them is the colour of the throat, which in this is of a beautiful clear ultra-marine blue, crossed or divided about the middle by a patch of reddish orange, and bordered at its lower termination, near the breast, with black; below this it is reddish chesnut, broken or mixed with dull white and dingy brown; thence to the vent, though of a lighter cast, it is clouded more or less with the latter colours. The middle tail feathers are of the same colour as the upper plumage, viz., brown tinged with olive: the better half of the outside feathers of the tail to its base are orange red, the rest at the tip are black: the

legs and toes are black. The specimen from which the above figure was made, seemed to be somewhat longer or taller than the Redbreast; but this might be owing to the manner of stuffing its skin. Some of the foreign species noticed by ornithologists, are found to have a white patch in the middle of the blue on the throat. It is said to be met with in various parts of the continent, from Sweden to Gibraltar. Its song is described as being agreeable, and it is said it sings in the night.

This innocent and beautiful little visitor (probably on its first arrival) was shot on the boundary hedge of the Newcastle Town Moor, in May, 1826, and presented by Mr. Thomas Embleton to the Museum of the Literary and Philosophical Society; where it is hoped this effigy of it will be long preserved as its monument, and in atonement for taking away its life.



THE REDSTART.

RED-TAIL.

(*Sylvia Phœnicurus*, Lath.—*Bec-fin de murailles*, Temm.)

MEASURES rather more than five inches in length. The bill and eyes are black; forehead white; cheeks, throat, fore part and sides of the neck black, which colour extends over each eye; the crown of the head, hinder part of the neck, and the back, are of a deep blue grey; in some, probably old birds, this grey is almost black; the breast, rump, and sides are of a fine glowing red, inclining to orange, which extends to all the feathers of the tail, excepting the two middle ones, which are brown; the belly is white; feet and claws black. The female differs considerably from the male; her colours are not so vivid; the top of the head and back are ash-grey; chin white.

The Redstart is migratory; it appears about the middle of April, and departs in the end of September, or beginning of October; it frequents old walls and ruinous edifices, where it makes its nest, composed chiefly of moss, lined with hair and feathers. It is distinguished by a peculiar quick shake of its tail from side to side, when it alights. Though wild and timorous, it is frequently found in the midst of cities, always chusing the most inaccessible places for its residence; it likewise builds in forests, in holes of trees, or in high and dangerous precipices. The female lays four or five eggs, not much unlike those of the Hedge-warbler, but somewhat longer. These birds feed on flies, spiders, the eggs of ants, small berries, soft fruits, and such like. The young are thickly freckled with tawny spots, and might readily be mistaken for the young of the Redbreast, but for the vivid horizontal motion of the tail, which begins as soon as they fly.

THE YELLOW WREN.

WOOD WREN.

(*Sylvia Sibilatrix*, Bechst.—*Bec-fin siffleur*, Temm.)

LENGTH above five inches. The bill is brown, the inside and edges yellow; eyes hazel; upper parts of the plumage yellow, inclining to a pale olive green; the under pale yellow; over each eye there is a whitish streak, tinged with yellow, which in young birds is very distinct; the wings and tail are dusky brown, with pale edges: legs yellowish brown.

There are three or four distinct species* of these,

* The author was so fortunate as to procure specimens of this and others, taken at the same time of the year, and had an opportunity of noticing the difference of their song. For these specimens, as well as for many others, this work is indebted to the late Major H. F. Gibson, of the 4th Dragoons.

of which the Yellow Wren is the largest; the following two differ in their size as well as note; their form and manners are, however, very similar. It is sometimes seen on the tops of trees, whence it often rises singing; its note is rather low, and soft, but not much varied. It builds its nest in plantations or coppices, and on the ground; it is composed of a great quantity of materials which lie scattered about, such as the leaves of the holly, which have been dissected by insects, for its covering, and lined with the withered stems of small grasses: the entrance is on the side. The eggs, about six in number, are white, and more or less closely spotted with deep brown.

A nest of this species, with five young ones, was found and examined in Axwell Park, June 18, 1801: it was built on the edge of a *brae;* the entrance was long, and curiously arched over with the stems of dried grass.

THE WILLOW WREN.

(*Sylvia Trochilus*, Lath.—*Bec-fin pouillot*, Temm.)

THIS is next in size. The plumage of the upper parts is darker than that of the last, and of an olive green; the wings are brown, with dull yellow edges; under parts whitish, pretty deeply tinged with yellow on the throat, breast, and thighs: the bill is brown, inside yellow; over each eye a light yellow line extends from the bill to the back part of the head: the legs are yellow brown. These birds vary in the shadings of their plumage.

The Willow Wren frequents hedges and shrubberies; its food consists of insects, in search of which it is continually running up and down small branches of trees. Its nest is placed on the ground, commonly on the side or edge of a *brae;* it is composed of a great quantity of moss and dried grass, lined with long coarse hair and feathers; it lays six white eggs, beautifully spotted with red.

THE CHIFF CHAFF.

(Sylvia Rufa, Lath.—*Bec-fin véloce*, Temm.)

LENGTH nearly five inches; breadth seven and a quarter; weight about a quarter of an ounce; upper plumage dark olive green; the under partakes of a *blea* lint white, slightly tinged with yellow; a pale dull yellow line extends from the bill over the eyes towards the nape; bill dark, with yellow edges; primaries, secondaries, and tail brown, edged with pale green; legs yellowish brown. They visit this country among the first summer birds of passage, but from their preferring shady woods, or tall trees, are seldom to be seen.* They build in a low bush near the ground: the nest is composed of dried leaves and stems of grass, lined with feathers: it lays from three to six eggs, white, beautifully spotted with vinous brown.

* Seven of these birds have been presented to this work by Mr. W. Proctor. They all exhibited nearly the same plumage.

THE LEAST WILLOW WREN.

TROCHILUS MINOR.

LENGTH scarcely four inches and a quarter. The upper plumage is of a deeper brown than that of the last, and with less of the olive tinge; the streak above the eye, the chin, throat, and fore part of the neck are of a duller cast; the legs and toes of a much darker brown; and its usual feeble song is also very different.

From a specimen of the bird sent to this work by J. C. Wood, Esq., and another since received, it is clear that it is a different bird from the Chiff Chaff of White; from these the above figure was made, which it is hoped is sufficiently accurate to enable the ornithologist to identify this very small bird. Mr. Wood (who has also favoured us with specimens of every known species of this family) says, "This bird comes over to us in about the same numbers as the Yellow Wren; its haunts are the same, and I think it dwells in

the woods only; the song, size, and very brown legs distinguish it clearly from the others; its two notes are loud and powerful, and in very bright fine weather, it makes the woods echo with them."

It has before been stated that its note is feeble; this however applies only to its ordinary song, for while his faithful mate is anxiously engaged in the business of incubation, the male, from his lofty situation, ardently pours forth his music to cheer her in the nest, which is covered with leaves, and generally sheltered by a bush below.

THE GOLDEN-CRESTED WREN.

(*Regulus auricapillus*, Selby.—*Roitelet ordinaire*, Temm.)

THIS is supposed to be the least of all European birds; it is certainly the smallest of the British kinds, being in length not quite three inches and a half,* and weighing only seventy-six grains. The bill is very slender and dark; eyes hazel; on the top of its head the feathers are of a bright orange colour, bordered on each side with black, which forms an arch above the eyes, and with which it sometimes conceals the crown, by contracting the muscles of the head: the upper part of the body is yellowish olive green; all the under parts pale reddish white, tinged with green on the sides: the greater coverts of the wings are dusky brown, edged with yellow, and tipped with white: quills dusky, edged with pale green, as are the feathers of the tail, but lighter; legs yellowish

* The body, when stripped of its feathers, is about an inch long.

brown. The female is distinguished by a pale yellow crown: her whole plumage is less vivid than that of the male.

This *most pleasing fairy* bird delights in the largest trees, such as oaks, elms, tall pines, and firs, particularly the first, in which it finds both food and shelter; in these it builds its nest, which is suspended, like a hammock, from a branch by a kind of cordage made of the materials of which the nest is chiefly composed; it is of an oblong form, having an aperture on one side, and is made principally of moss, lined with the softest down, mixed with slender filaments: the female lays from six to a dozen eggs, scarcely larger than peas, which are white, sprinkled with very small spots of a dull colour. These birds are very agile, and are almost continually in motion, fluttering from branch to branch, creeping on all sides of the trees, clinging to them in every situation, and often hanging like the Titmouse. Their food consists chiefly of the smallest insects, which they find in the crevices of the bark of trees, or catch nimbly on the wing; they also eat the eggs of insects, small worms, and various sorts of seeds.

The Golden-crested Wren is diffused throughout Europe; it has also been met with in Asia and America, and seems to bear great extremes of temperature. It stays with us the whole year, and is a constant resident even so far north as the Orkney Islands, where it also breeds. Its song is said to be very melodious, but weaker than that of the Common Wren: it has besides a sharp shrill cry, somewhat like that of the Grasshopper.

THE WREN.

KITTY WREN.

(*Troglodytes Vulgaris*, Temm.—*Troglodyte ordinaire*, Temm.)

LENGTH three inches and a half. The bill is slender, and a little curved; upper mandible and tips of a brownish horn colour, the under one, and edges of both, dull yellow; a whitish line extends from the bill over the eyes, which are dark hazel; the upper parts of the plumage are clear brown, obscurely marked on the back and rump with narrow double wavy lines of pale and dark brown colours; the belly, sides, and thighs are marked with the same colours, but more distinctly; the throat is dingy white; cheeks and breast the same, faintly dappled with brown; the quills and tail are marked with alternate bars of a reddish brown and black; legs pale olive brown.

This active little bird is very common in England, and braves our severest winters, which it contributes to enliven by its sprightly note. During that season it approaches near the dwellings of man, and takes shelter in the roofs of houses, barns, and in hay-stacks; it sings till late in the evening, and not unfrequently during a fall of snow. In the spring it betakes itself to the woods, where it builds on the ground, or in a low bush, and sometimes on the turf, beneath the trunk of a tree, or in a hole in a wall; its nest is constructed with much art, of an oval shape, with one small aperture in the side for an entrance; it is composed chiefly of moss, or other surrounding materials, so as not to be easily distinguished from them, and lined within with feathers: the female lays from ten to sixteen, and sometimes eighteen eggs; they are white, thinly sprinkled with small reddish spots, mostly at the thicker end.

THE WHEATEAR.

WHITE-RUMP.

(*Saxicola Œnanthe*, Bechst.—*Traquet motteux*, Temm.)

LENGTH five inches and a half. Bill black; eyes hazel; from the base of the bill a black streak or patch is extended over the eyes, cheeks, and ears, where it is pretty broad; above this there is a line of white; the top of the head, hinder part of the neck, and the back, are bluish grey; the wing coverts and quills are dusky, edged with rusty white; the rump is perfectly white, as is part of the tail; the rest black; the under parts are pale buff, tinged with red on the breast: legs and feet black. In the female the white line above the eye is somewhat obscure, and all the black parts of the plumage incline more to brown; neither is the tail of so pure a white.

The Wheatear breeds under shelter of a tuft or clod, in newly ploughed lands, or under stones, and sometimes in old rabbit burrows; its nest, which is constructed with great care, is composed of dry grass or moss, mixed with wool, and is lined with feathers, and defended by a sort of covert fixed to the stone or clod under which it is formed: the female generally lays five or six light blue eggs, the larger end encompassed with a circle of a somewhat deeper hue.

This bird visits us about the middle of March, and from that time till May is seen to arrive; it frequents new-tilled grounds, and never fails to follow the plough in search of insects and small worms, which are its principal food. In some parts of England great numbers are taken in snares made of horse hair, placed beneath a turf; near two thousand dozen are said to have been taken annually in that way, in one district only, and are generally sold at sixpence per dozen.* They leave us in August and September, and about that time are seen in great numbers by the sea-shore, where, probably, they subsist some little time before they take their departure. They are extended over a large portion of the globe, even as far as the southern parts of Asia.

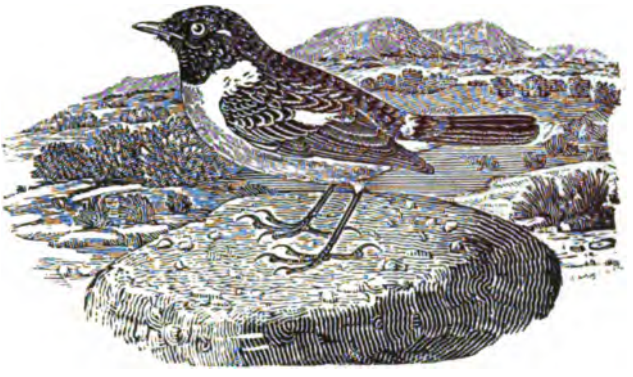
* Pennant.

THE WHINCHAT.

(Saxicola Rubetra, Bechst.—*Traquet tarier*, Temm.)

THIS bird is somewhat larger than the Stonechat. The bill is black; eyes hazel; the feathers on the head, neck, and back are black, bordered with rust colour; a streak of white passes from the bill over each eye towards the hinder part of the head; the cheeks are blackish; chin white; breast rusty; belly, vent, and thighs pale buff; each wing is crossed by a white mark near the shoulder, and another smaller near the bastard wing; part of the tail, at the base, is white, the rest black; the two middle feathers wholly black, as are also the legs. The colours of the female are in general paler; the white streak over the eye, and the spots on the wings, are much less conspicuous; and the cheeks, instead of being black, partake of the colours of the head.

The Whinchat is a solitary bird, frequenting heaths and moors: it has no song, but only a simple unvaried note, and in manners very much resembles the Stonechat; it makes its nest very similar to that bird, and is generally seen in the same places during the summer months: the female lays five eggs, of a lightish blue, very faintly sprinkled with small rusty spots. In the northern parts of England it disappears in winter: but its migration is only partial, as it is seen in some of the southern counties at that season. It feeds on worms, flies, and insects.



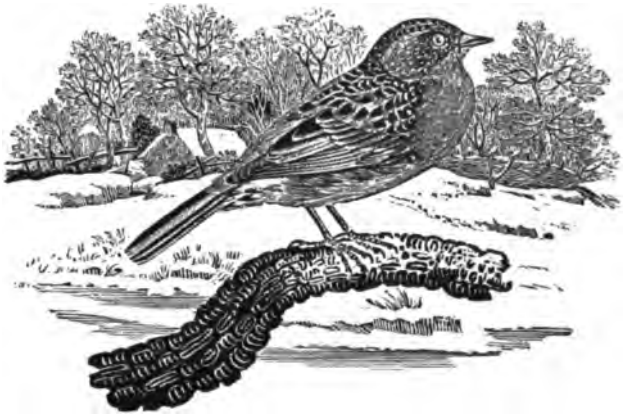
THE STONECHAT.

STONE-SMITH, MOOR-TITLING.

(*Saxicola Rubicola*, Bechst.—*Traquet rubicole*, Temm.)

LENGTH nearly five inches. Bill black; eyes dark hazel; the head, neck, and throat black, faintly mixed with brown; on each side of the neck, immediately above the wings, there is a large white spot; the back and wing coverts are of a fine velvet black, margined with reddish brown: the quills are dusky, with pale brown edges, those next the body are white at the bottom, forming a spot of that colour on the wings; the breast is bay, lightest on the belly: the rump white; tail black, the outer feathers edged with rusty colour: legs black. The colours of the female are duller; the white on the sides of the neck is not so conspicuous; the breast and belly much paler, and the white spot on the rump is wanting.

This solitary bird is chiefly found on wild heaths and commons, where it feeds on small worms and insects of all kinds. They build at the roots of bushes, or underneath stones, carefully concealing the entrance to the nest by a variety of arts: it generally alights at some distance, and makes its approaches with great circumspection, creeping along the ground in a winding direction, so that it is a difficult matter to discover its retreat. They build about the end of March, and lay five or six eggs of a greenish blue, faintly freckled with pale rust colour. The flight of the Stonechat is low: it is almost continually on the wing, flying from bush to bush, alighting only for a few seconds. It remains with us the whole year, and in winter frequents moist places, in quest of food. Buffon compares its note to the word *wistrata* frequently repeated. Latham observes, that it seemed to him like the clicking of two stones together, from which circumstance it probably may have derived its name.



THE HEDGE WARBLER.

HEDGE SPARROW.

(*Accentor modularis*, Cuvier.—*Accenteur mouchet*, Temm.)

THE length of this well-known bird is somewhat more than five inches. The bill is dark; eyes hazel; its general appearance is dusky brown; the feathers on the head, hinder part of the neck, back, wings, and tail are edged with rusty or pale tawny brown, plain on the rump, clouded, and dashed on the sides with deeper shades of those colours: the chin, throat, sides of the neck, and fore part of the breast are dull bluish ash; belly the same colour, but lighter; legs reddish brown.

This bird is commonly seen in hedges, from which circumstance it derives one of its names; but it has no other relation to the Sparrow, and

only resembles it in the similarity of the colours of its upper plumage; in every other respect it differs entirely. It remains with us the whole year, and builds its nest in hedges; it is composed of moss and wool, and lined with hair. The female generally lays four or five eggs, of a uniform pale blue: the young are hatched about the beginning of May. During the time of sitting, if a cat or other voracious animal should happen to come near the nest, the mother endeavours to divert it from the spot by a stratagem similar to that by which the Partridge misleads the dog: she springs up, flutters from spot to spot, and by such means allures her enemy to a safe distance. In France this bird is rarely seen but in winter; it arrives generally in October, and departs in the spring for more northern regions, where it breeds. It is supposed to brave the rigours of winter in Sweden, and that it assumes the white plumage common in those severe climates in that season. Its song is little varied, but brisk and pleasant, especially in a season when the other warblers are mostly silent. It has already been observed that the Cuckoo sometimes deposits her egg in the nest of this bird.

Of the Wagtail.

THE species of the Wagtails properly so called, are few, and are chiefly confined to the continent of Europe, where the individuals are numerous. They are easily distinguished by their brisk and lively motions, as well as by the great length of their tails, which they jerk up and down incessantly, from which circumstance they derive their name.* They do not hop, but run along the ground very nimbly after flies and other insects, on which they feed; they likewise feed on small worms, in search of which they frequently flutter round the husbandman whilst at his plough, and follow the flocks in search of the flies which generally surround them. They frequent the sides of runners and pools, and pick up the insects which swarm there. They seldom perch; their flight is weak and undulating, during which they make a twittering noise.

* In almost all languages the name of this bird is descriptive of its peculiar habits. In Latin, Motacilla; in French, Moteux, La Lavandiere, or Washer; in England, they are sometimes called Washers, from their peculiar motion; in German, their name signifies Brook-stilts; and, in Italian, Shake-tail, &c., &c.

THE PIED WAGTAIL.

BLACK AND WHITE WATER WAGTAIL.

(*Motacilla Yarrellii*, Gould.—*Bergeronette Yarrell*, Temm.

LENGTH about seven inches. The bill is black; eyes hazel; hinder part of the head and neck black; forehead, cheeks, and sides of the neck white; the fore part of the neck and part of the breast are black, bordered by a whitish line forming a gorget; the back and rump are dark ash; wing coverts and secondary quills dusky, edged with light grey: prime quills black, with pale edges; lower part of the breast and belly white; the middle feathers of the tail are black, the outermost white, except at the base and tips of the inner webs, which are black; legs black. There are slight variations in these birds; some are white on the chin and throat, leaving only a crescent of black on the breast. The head of the female is brown.

This is a very common bird with us, and may be seen every where, running on the ground, and

leaping after flies and other insects, on which it feeds. Its usual haunts are the shallow margins of springs and running waters, into which it will sometimes wade a little in pursuit of its food. They make their nest on the ground, of dry grass, moss, and small roots, lined with hair and feathers, and have been known sometimes to breed in the deserted nest of the Swallow, in chimnies; the female lays five white eggs, spotted with brown. They are very attentive to their young, and continue to feed and train them for three or four weeks after they are able to fly: they defend them with great courage when in danger, or endeavour to draw aside the enemy by various little arts. They are very attentive to the cleanliness of the nest, and have been known to remove light substances, such as paper or straw, which have been laid as a mark to find it by.

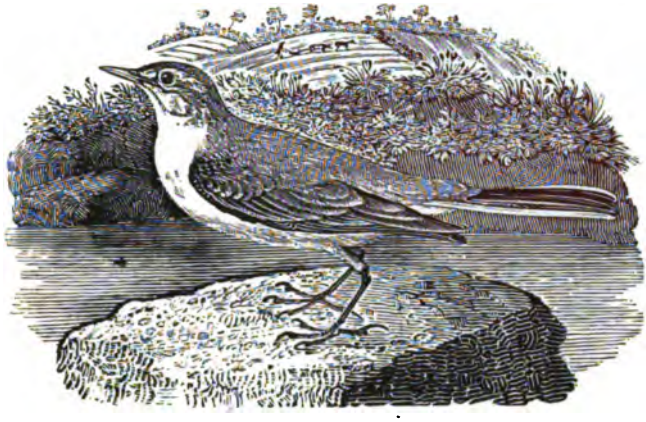
The Wagtail is said by some authors to migrate into other climates about the end of October; with us it is known to change its quarters as the winter approaches, from north to south. Its note is small and insignificant, but frequently repeated, especially while on the wing.

THE GREY WAGTAIL.

(Motacilla Boarula, Linn.—*Bergeronette jaune, ou boarule*, Temm.)

Is somewhat longer than the last. Bill dark brown; over each eye a pale streak; head, neck, and back ash-grey; throat, chin, and fore part of the neck black; rump and under parts bright yellow; wing coverts and quills dark brown, the former with pale edges; tertials, almost as long as the greater quills, white at the base, and edged with yellow on the outer webs; middle tail feathers black, outer one white: legs yellowish brown.

The habits of this bird are similar to those of the last. It builds on the ground, and sometimes on the banks of rivulets, laying six or eight eggs, of a dirty white, with yellow spots. The female has no black on the throat.



THE YELLOW WAGTAIL.

RAY'S WAGTAIL.

(*Motacilla flava*, Ray.—*Bergeronnette flavéole*, Temm.)

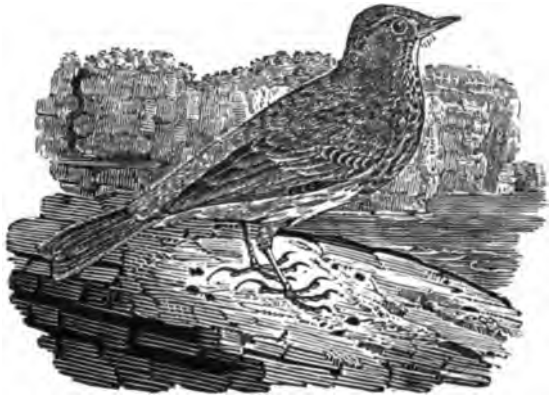
LENGTH six inches and a half. Bill black; eyes hazel; the head and all the upper parts of the body are olive green, palest on the rump; the under parts bright yellow, dashed with a few dull spots on the breast and belly; over each eye is a pale yellow streak, and beneath a dusky line, curving upwards towards the hinder part of the head; wing coverts edged with pale yellow; quills dusky; tail black, except the outer feathers, which are white; legs black; hinder claws long.

This bird is seen very early in the spring, in the meadows and fields, among the green corn, where it frequently nestles; in winter it haunts the sides of brooks and springs which do not freeze. The female lays five eggs, of a pale lead colour, with dusky spots.

RICHARD'S PIPIT.

(*Anthus Richardi*, Vieillot.—*Pipit Richard*, Temm.)

THE preserved specimen above figured, was lent to this work by N. A. Vigors, Esq. The whole of the upper plumage, like most of the Larks, has, at a little distance, an olive brown look, though the middle of the feathers is dusky, and the webs are reddish pale brown, and some of the outer ones edged with dull white; the lesser and greater coverts, the primaries, secondaries, and tertials are also of a deep dusky brown, and edged nearly in the same way; the quills are dusky, and the tail, which consists of twelve feathers, is the same, excepting the outer ones being quite white, and the two next them are also mostly white, with a dusky stripe down the middle part on the shafts; the throat and under parts are of a dull yellowish white; the breast is yellow, spotted with black.



THE ROCK LARK.

Anthus Aquaticus, Bechst.—*Pipit spioncelle*, Temm.)

THIS bird is six inches and seven-eighths in length, and eleven inches and three-eighths in breadth. The bill is rather slender; irides hazel; a pale streak extends from the upper part of the beak over the eyes, and a dark one underneath; the plumage on the head, neck, back, wings, tertials, and tail, looks altogether of a deep olive brown, but on a nearer inspection, each feather is dark in the middle, and lighter towards the edges; but the lower part of the back is not clouded, being more uniformly pale olive, or greenish brown; the two outside feathers of the tail are brownish white the whole length of their outer margins, and the inner web is the same, about half way from the end. In the above figure, which was taken from a stuffed specimen, the tertial feathers were nearly the length of the quills, which latter are narrowly

edged on the outer webs with pale greenish brown; the under parts, from the throat to the vent, are of a pale dingy yellow, spotted on the fore part of the neck, and clouded or striped on the breast and sides with olive brown. The legs are pale brownish red; the hind claws long and curved. This bird is mostly met with among the rocks on the promontories and isles near the sea shore: it builds its nest, commonly, in the crevices near the tops of those where the earth has crumbled down and made a lodgement; it is rather large, and is wholly composed of the small blades and stems of dried grass. The eggs, five in number, are closely freckled with ash, and sprinkled with small brown spots.

THE TITLARK.

(*Anthus Pratensis*, Bechst.—*Pipit farlouse*, Temm.)

Is five inches and a half in length. The bill is black at the tip, and yellowish brown at the base; the eyes hazel, and over each is a pale streak. In the disposition of the colours it is very similar to the Skylark, but somewhat darker on the upper parts, and inclining to a greenish brown. The breast is beautifully spotted with black on a light yellowish ground; the belly light ash, obscurely streaked on the sides with dusky; the tail is almost black, the two outer feathers white on the exterior edges, the outermost but one tipped with a white spot on the end: the legs are yellowish; feet and claws brown. The plumage of the female is less bright than that of the male.

The Titlark is common in this country; and, though it sometimes perches on trees, is generally found in meadows and low marshy grounds. It

makes its nest of withered grass, commonly on the ground, but sometimes on the side of a *brae:* the nest is like that of the Rock Lark, but the eggs are different both in size and colour: the female lays five eggs, very closely freckled with deep brown: the young are hatched about the beginning of June. The Titlark is flushed with the least noise, and shoots off with a rapid flight. Its note is fine, but short, and without much variety; it warbles in the air in humble imitation of the Sky-lark, and increases its song as it descends slowly to the branch on which it chuses to perch. It is further distinguished by the shake of its tail, particularly whilst it eats.

THE TREE LARK.

(*Anthus Arboreus*, Bechst.—*Pipit des buissons*, Temm.)

THIS bird measures six inches and three-eighths in length, and ten inches in breadth. The upper mandible is dusky: the under one pale, with a blush of red: the upper part of the head, and hinder part of the neck, are dingy light brown, streaked with very dark brown spots; the back feathers partake more of olive, and are also streaked with dark brown: the lower part of the back, the rump and upper tail coverts are dull olive brown, lightest on the edges; the tail feathers are deep brown, with lighter edges; the two outside ones dull white on the exterior margins and tips; and the two next to them tipped with a spot of white; the chin, throat, and fore part of the neck and breast are dull yellow, the latter spotted with very dark brown; the belly and vent

dingy white; sides reddish yellow, marked with narrow streaks of brown; the ridge of the wings, and part of the lesser coverts are olive brown; the feathers next the greater coverts dark brown, deeply edged with dull white; all the rest of the wing feathers are darkish brown, more or less margined with pale edges: legs and toes dull yellow.

This bird frequents woods and plantations, and sits on the highest branches of trees, whence it rises singing, to a considerable height, and descends slowly, with its wings set up and its tail spread out like a fan. Its note is full, clear, melodious, and peculiar to its kind. It builds its nest on the ground, commonly at the root of a bush, near the edge of a coppice or plantation. The outside is made of moss; the inside of the stems of dried grass, slightly bound together with a very few hairs. The eggs, seven in number, vary much in colour and marking, they are generally blotched with deep vinous purple on a greyish ground.

Granivorous Birds.*

THE birds of this order are furnished with bills, more or less stout, of a conical shape, and very sharp at the point, admirably fitted for the purpose of breaking the hard external coverings of the seeds of plants from the kernels, which constitute the principal part of their food; during the time of incubation they destroy great numbers of insects and their larvæ, on which they feed their young.

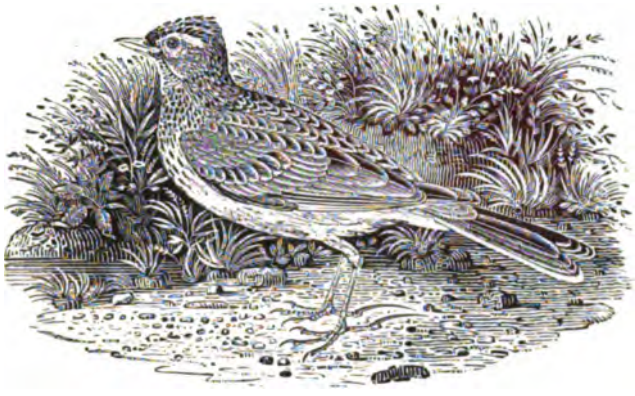
Many of the busy little tribes which constitute this order are distinguished by the beauty of their plumage and the sweetness of their song. Some of the species congregate in large flocks during the autumn and winter months, enlivening the woods and fields, and others are even met with in the largest and most populous cities.

* This order comprises six British genera, viz.: Alauda, Parus, Emberiza, Loxia, Pyrrhula, Fringilla.

Of the Lark.

AMONG the various kinds of singing birds with which this country abounds, there is none more eminently conspicuous than those of the Lark kind. Instead of retiring to woods and deep recesses, or lurking in thickets, where it may be heard without being seen, they are generally seen abroad in the fields; it is the only bird which chaunts on the wing, and while it soars beyond the reach of our sight, pours forth the most melodious strains, which may be distinctly heard at an amazing distance.

From the peculiar construction of the hinder claws, which are very long and straight, Larks generally rest upon the ground; those which frequent trees perch only on the larger branches. They all build their nests upon the ground, which exposes them to the depredations of the smaller kinds of voracious animals, such as the weazel, stoat, &c., which destroy great numbers of them. The general characters of this genus are thus described:—The bill is straight and slender, bending a little towards the end, which is sharp-pointed; the nostrils are partly covered with feathers and bristles; the tongue is cloven at the end; tail somewhat forked; the toes divided to the origin; claw of the hinder toe very long, and almost straight; the fore claws very short, and slightly curved.



THE LARK.

SKY LARK, OR LAVROCK.

(*Alauda Arvensis*, Linn.—*Alouette des champs*, Temm.)

LENGTH nearly seven inches. Bill dusky, under mandible somewhat yellow; eyes hazel; over each eye a pale streak, which extends to the bill, and round the eye on the under side; on the upper parts of the body the feathers are of a reddish brown colour, dark in the middle, with pale edges: the fore part of the neck is reddish white, spotted with brown; breast, belly, and thighs white; the quills brown with pale edges; tail the same, and somewhat forked, the two middle feathers darkest, the outermost white on the outer edge; the legs dusky. In some of our specimens the feathers on the top of the head were long, and formed a sort of crest behind. The Lesser Crested Lark of Pennant and Latham is perhaps only a variety of this bird.

The Lark begins its song very early in spring, and is heard chiefly in the morning.* The great poet of nature thus beautifully describes it as the leader of the general chorus:—

> ....."Up springs the Lark,
> "Shrill-voic'd and loud, the messenger of morn;
> "Ere yet the shadows fly, he, mounted, sings
> "Amid the dawning clouds, and from their haunts
> "Calls up the tuneful nations."

It rises in the air almost perpendicularly and by successive springs, and hovers at a vast height; its descent, on the contrary, is in an oblique direction, unless it is threatened by birds of prey, or attracted by its mate, and on these occasions it drops like a stone. It makes its nest on the ground, between two clods of earth, and lines it with dried grass and roots; the female lays four or five eggs, of a greyish brown, marked with darker spots; she generally has two broods in the year, and sits only about fifteen days. As soon as the young have escaped from the shell, the attachment of the parent seems to increase; she flutters over their heads, directs all their motions, and is ever ready to screen them from danger.

The Lark is diffused almost universally throughout Europe: it is every where extremely prolific,

* Shakespeare thus beautifully describes its rising:—

> Lo! hear the gentle Lark, weary of rest,
> From his moist cabinet mounts up on high,
> And wakes the morning, from whose silver breast
> The sun ariseth in his majesty.

and in some places the prodigious numbers that are frequently caught are truly astonishing. In Germany there is an excise upon them, which has produced, according to Keysler, the sum of 6000 dollars in one year to the city of Leipsic alone. Pennant says, the neighbourhood of Dunstable is famous for the great numbers of these birds found there, and that 4000 dozen have been taken between September and February, for the London markets. Yet, notwithstanding the great havoc made among these birds, they are extremely numerous. The winter is deemed the best season for taking them, as they are then very fat, being almost constantly on the ground, feeding in great flocks; whereas in summer they are very lean; they then always go in pairs, eat sparingly, and sing incessantly while on the wing.

THE WOODLARK.

(*Alauda Arborea*, Linn.—*Alouette lulu*, Temm.)

THIS bird is smaller than the Sky Lark: the colours of its plumage are much the same; a white streak passes from the bill over each eye nearly to the nape: the under parts are white, tinged with yellow on the throat, and red on the breast, and spotted with black. The tail is shorter than that of other Larks, which gives this bird a less tall and slender shape; the legs are dull yellow; the hinder claw very long, and somewhat curved.

The Woodlark is generally found near the borders of woods, from which it derives its name; it perches on trees, and sings during the night, so as sometimes to be mistaken for the Nightingale; it likewise sings as it flies, and builds its nest on

the ground, similar to that of the Sky Lark. The female lays five eggs of a dusky hue, marked with brown spots. It builds very early, the young, in some seasons, being able to fly about the latter end of March. It makes two nests in the year, like the Sky Lark, but is not nearly so numerous as that bird.

ASHMOLEAN OXFORD MUSEUM

Of the Titmouse.

THIS diminutive tribe is distinguished by a peculiar sprightliness and vivacity, to which may be added a degree of strength and courage, which by no means agrees with its appearance. They are perpetually in motion; running with great celerity along the branches of trees, searching in every little cranny, where the eggs of insects are deposited, which are their favourite food. During spring they are observed to be very busy among the opening buds in search of caterpillars, and are thus actively employed in preventing the mischiefs that would arise from a too great increase of destructive insects, whilst at the same time, they are intent on the means of their own preservation; they likewise eat small pieces of raw meat, particularly fat, of which they are very fond. None of this kind have been observed to migrate: they sometimes make short flittings from place to place in quest of food, but never entirely leave us. They are very bold and daring, and will attack birds much larger than themselves. Buffon says, "they pursue the Owl with great fury, and in their attacks aim chiefly at the eyes: their actions on these occasions are attended with a swell of the feathers, and a succession of violent attitudes and rapid movements, which strongly mark the bitterness of their rage. They will sometimes attack birds smaller and weaker than themselves, which they kill, and having picked a hole in the skull, they eat out the brains." The nests of most of

this kind are constructed with the most exquisite art, and with materials of the utmost delicacy: some species, with great sagacity, build them at the extreme end of small branches projecting over water, by which means they are effectually secured from the attacks of serpents and the smaller beasts of prey.

These birds are very widely spread over both the old and the new continent. They are every where prolific, even to a proverb, laying a great number of eggs, which they attend with great solicitude, and provide for their numerous progeny with indefatigable activity.

All the Titmice are distinguished by short bills, which are conical, a little flattened at the sides, and very sharp-pointed; by which they are admirably fitted by nature to pick up their prey, which consists mostly of the eggs of insects, on which they live all the winter season; the nostrils are small and round, and generally covered by short bristly feathers, reflected from the forehead; the tongue seems as if cut off at the end, and terminated by short filaments; the toes are divided to their origin; the back toe is very large and strong.

THE GREAT TITMOUSE.

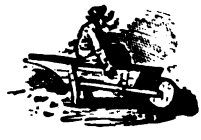
OX-EYE.

(*Parus Major*, Linn.—*Mesange charbonnière*, Temm.)

THE length of this bird is about five inches. The bill and eyes are black, the head is covered apparently with a sort of hood, of a fine deep glossy black, which extends to the middle of the neck; cheeks white; belly greenish yellow, divided down the middle by a line of black reaching to the vent; the back is of an olive green; the rump bluish grey; quills dusky, the greater edged with white, the lesser with pale green; the wing coverts are of a bluish ash; the greater coverts tipped with white, which forms a bar across the wings; the tail is black, the exterior edge of the outer feathers white; legs dark lead colour; claws black.

The Titmouse begins to pair early in February; the male and female consort for some time before they make their nest, which is composed of the softest and most downy materials. They build generally in the hole of a wall or tree; and continue

to do so in the same place for many seasons, if not disturbed: the female lays from eight to twelve white eggs, spotted with rust colour. The young brood continue blind for several days, after which their growth is very rapid, and they are able to fly in about fifteen days; after they have quitted the nest they return no more to it, but perch on the neighbouring trees, and incessantly call on each other; they generally continue together till the approach of spring invites them to pair. We kept one of these birds in a cage for some time; it was fed chiefly with hemp-seed, which, instead of breaking with its bill, like the Linnet, it held very dexterously in its claws, and pecked it till it broke the outside shell; it likewise ate raw flesh, minced small, and was extremely fond of flies, which, when held to the cage, it seized with great avidity; it was continually in motion during the day, and would, for hours together, dart backwards and forwards with astonishing activity. Its usual note was strong and simple; it had besides, a more varied, but very low, and not unpleasant song. During the night it rested on the bottom of the cage.



THE COAL TITMOUSE.

(*Parus Ater*, Linn.—*Mesange petite charbonnière*, Temm.)

THIS bird weighs only two drachms; length four inches. Bill black, as are the head, throat, and part of the breast; from the corner of the bill, on each side, an irregular patch of white passes under the eyes, extending to the sides of the neck; a spot of the same occupies the hinder part of the head and neck; the back and all the upper parts are greenish ash; wing coverts tipped with white, which forms two bars across the wing; under parts reddish white: legs lead colour; tail somewhat forked at the end. This species frequents hilly woods, particularly those of the pine and fir, building in hollow trees, and laying eight or ten eggs of a pure white, with a few reddish spots.

THE BLUE TITMOUSE.

TOM-TIT, BLUE-CAP, OR NUN.

(*Parus Cæruleus*, Linn.—*Mésange bleue*, Temm.)

THE length of this beautiful bird is about four inches and a half. Bill and eyes black; crown of the head blue, terminated behind with a line of dirty white; sides of the head white, underneath which, from the throat to the hinder part of the neck, is a line of dark blue; from the bill, on each side a narrow line of black passes through the eyes; the back is yellowish green: coverts blue, edged with white; quills black, with pale blue edges; tail blue, the two middle feathers longest; under parts of the body pale yellow; legs and claws black. The female is somewhat smaller than the male, has less blue on the head, and her colours in general are not so bright.

This busy little bird is seen frequently in our gardens and orchards, where its operations are much dreaded by the over anxious gardener, who fears, that in its pursuit after its insect food, which is often lodged in the tender buds, it may destroy them also, to the injury of the future harvest, not considering that it is the means of destroying a much more dangerous enemy (the caterpillar), which it finds there: it has likewise a strong propensity to flesh, and is said to pick the bones of such small birds as it can master, as clean as skeletons. The female builds her nest in holes of walls or trees, which she lines well with feathers: she lays from fourteen to twenty white eggs spotted with red. If her eggs should be touched, or one of them be broken, she forsakes her nest and builds again, but otherwise makes but one hatch in the year. This bird is distinguished above all the rest of the Titmice by its rancour against the Owl.

THE CRESTED TITMOUSE.

(*Parus Cristatus*, Linn.—*Mésange huppée*, Temm.)

THIS shy and solitary species is rather more than four inches and a half in length. It is distinguished from the rest of the genus by having its head ornamented with a peaked crest of black feathers, narrowly margined with white; those between the crest and the brow are of the same colours, but the white greatly predominates. The bill and irides are dusky; the cheeks and sides of the head and neck dull white; the chin, and fore part of the neck to the breast, black: from thence a line of the same branches off, and bounding the white part of the neck, extends to the hinder part of the head; the auriculars, with the exception of a white spot in the middle, are black, and form a patch, which is pointed off towards the nape; the

back and coverts are rusty dull brown; the quills and tail nearly the same, but more deeply tinged with rust colour; the breast, belly, and sides also partake of the same colours, but are much paler: the legs are lead colour.

Some of the species are said to have been met with in Scotland, but are considered rare visitants. They take up their abode in the deep recesses of forests, in various parts of the continent of Europe, and prefer the shelter of evergreen trees; but from their being of so retired a disposition, they are seldom seen there, even by the few whose business may lead them into those gloomy wilds. The above figure was made from a preserved specimen obligingly lent to this work by the Hon. H. T. Liddell, of Ravensworth Castle.

THE MARSH TITMOUSE.

BLACK-CAPPED TITMOUSE.

(*Parus Palustris*, Linn.—*Mésange nonnette*, Temm.)

LENGTH somewhat short of five inches. Bill black; the whole crown of the head, and part of the neck behind, deep black; a broad streak, of a yellowish white, passes from the beak, underneath the eye, backwards; throat black: breast, belly, and sides dirty white; back ash-grey; quill feathers dusky, with pale edges: tail dusky; legs dark lead grey.

The Marsh Titmouse is said to be fond of wasps, bees, and other insects, and to lay up a little store of seeds against a season of want. It frequents marshy places, whence it derives its name. Its manners are similar to those of the Coal Titmouse, and it is equally prolific.

THE LONG-TAILED TITMOUSE.

(*Parus Caudatus*, Linn.—*Mésange a longue queue*, Temm.)

LENGTH nearly five inches and a half, of which the tail itself is rather more than three inches. Its bill is very short and black; eyes hazel; orbits red; top of the head white, mixed with grey: over each eye there is a broad black band, which extends backwards, and unites on the hinder part of the head, whence it passes down the back to the rump, bordered on each side with dull red; the cheeks, throat, and breast are white; the belly, sides, rump, and vent dull rose colour, mixed with white; the coverts of the wings are black, those next the body white, edged with rose colour; quills dusky, with pale edges: the tail consists of feathers of very unequal lengths; the four middle ones are wholly black, the others white on the exterior edge; legs and claws black.

The foregoing figure was taken from one newly shot. There was a preserved specimen in the Wycliffe Museum, in which the black band through

the eyes was wholly wanting; the back of the neck was black: the back, sides, and thighs were reddish brown, mixed with white: it probably was a female.

The nest of this bird is singularly curious and elegant, of a long oval form, with a small hole in the side, near the top, as an entrance; the outside is formed of moss, woven or matted together with the silken shrouds of the aurelia of insects, and covered all over with the tree and the stone lichens, fixed with fine threads of the same silken material: from this thatch the rain trickles off without penetrating, whilst from its similarity in colour and appearance to the bark of the branch on which it is commonly placed, it is not easily discovered: the inside is thickly lined with a profusion of feathers,* the soft webs of which are all laid inwards, with the quills or points stuck into the outward fabric. In this comfortable mansion the female deposits her eggs, to the number of sixteen or seventeen, which are concealed almost entirely among the feathers: they are about the size of a large pea, and perfectly white,† but take a fine red blush from the transparency of the shell, which shews the yolk. This bird is not uncommon with us; its habits and places of resort are the same as those of the other Titmice. It flies very swiftly, and from its slender shape, and the great length of its tail, it seems like a dart shooting through

* In some places the nest is called a feather-poke.

† Eggs taken out of the same nest differ; some are delicately freckled with red spots. The difference of the eggs in the same nest is not uncommon.

the air. It is almost constantly in motion, running up and down the branches of trees with great facility. The young continue with the parents, and form litle flocks through the winter: they utter a small shrill cry, only as a call, but in the spring their notes become more musical.

The Long-tailed Titmouse is found in the northern regions of Europe, and from the thickness of its coat, seems well calculated to bear the rigours of a severe climate. Latham says that it has been brought from Jamaica; and observes, that it appeared as fully clothed as in the coldest regions.

THE BEARDED TITMOUSE.

(Parus Biarmicus, Linn.—*Mésange moustache*, Temm.)

LENGTH somewhat more than six inches. The bill is orange, but so delicate that it changes on the death of the bird to a dingy yellow; eyes also orange; head and back part of the neck pearl grey, or light ash; on each side of the head, from the eye, there is a black mark extending downwards on the neck, and ending in a point, not unlike a mustachio; the throat and fore part of the neck are silvery white; the back, rump, and tail light rust colour, as are the belly, sides, and thighs; the breast is delicate flesh colour; the vent black; lesser coverts of the wings dusky, the greater rusty, with pale edges; the quills are dusky, edged with white, those next the body with rusty on the exterior web, and with white on the inner; the bastard wing is dusky, edged and tipped with white: legs

black. The female wants the black mark on each side of the head; the crown of the head is rust colour, spotted with black; the vent feathers not black, but of the same colour as the belly.

The Bearded Titmouse is found chiefly in the southern parts of the kingdom; it frequents marshy places where reeds grow, on the seeds of which it feeds; it breeds there, though its minute history is imperfectly known. It is said that they were first brought to this country from Denmark, by the Countess of Albemarle, and that some of them, having made their escape, founded a colony here; but Latham, with great probability, supposes that they are ours *ab origine*, and that it is owing to their frequenting the places where reeds grow, and which are not easily accessible, that so little is known of them. Edwards gives a figure of this bird, and describes it under the name of the Least Butcher Bird.

Of the Bunting.

THE principal difference between this kind and the Finch, consists in the formation of the bill, which in the Bunting is of a very singular construction. The two mandibles are moveable, and the edges of each bend inwards; the opening of the mouth is not in a straight line as in other birds, but at the base the junction is formed by an obtuse angle in the lower mandible, nearly one-third of its length, which is received by a corresponding angle in the upper one; in the latter there is a strong knob, of great use in breaking the harder kinds of seeds and kernels, on which it feeds. The tongue is narrow, and tapers to a point like a tooth-pick; the first joint of the outer toe is joined to that of the middle one.

THE YELLOW BUNTING.

YELLOW HAMMER, OR YELLOW YOWLEY.

(*Emberiza Citrinella*, Linn.—*Bruant jaune*, Témm.)

LENGTH somewhat above six inches. Bill dusky; eyes hazel; the prevailing colour is yellow, mixed with brown of various shades; the crown of the head in general is bright yellow, more or less variegated with brown; the cheeks, throat, and lower part of the belly pure yellow; the breast reddish, and the sides dashed with streaks of the same; the hinder part of the neck and back are greenish olive; the greater quills dusky, edged with pale yellow; lesser quills and scapulars dark brown, edged with grey: the tail is dusky, and a little forked, the feathers edged with light brown, the outermost with white; the legs yellowish brown. It is somewhat difficult to describe a species of

bird of which no two are to be found perfectly similar, but its specific characters are plain, and cannot easily be mistaken. The colours of the female are less bright than those of the male, with very little yellow about the head.

This bird is common in every lane and on every hedge throughout the country, flitting before the traveller as he passes along the road, or uttering its simple and frequently repeated monotone on the hedges by the way side. It feeds on various kinds of seeds, insects, &c. The female makes an artless nest, composed of hay, dried roots, and moss, lined with hair and wool: she lays four or five eggs, marked with dark irregular streaks, and frequently has more than one brood in the season. In Italy, where small birds of almost every description are made use of for the table, this is esteemed very good eating, and is frequently fattened for that purpose like the Ortolan: but with us, who are accustomed to grosser kinds of food, it is considered too insignificant to form any part of our repasts.

THE BUNTING.

(Emberiza Miliaria, Linn.—*Bruant proyer*, Temm.)

THE length of this bird is about seven inches and a half. The bill is brown; irides hazel; the general colour resembles that of a Lark; the throat white, the upper parts olive brown, each feather streaked down the middle with black; the under parts are dirty yellowish white, streaked on the sides with dark brown, and spotted with the same on the breast; the quills dusky, with yellowish edges; upper coverts tipped with white; tail feathers much the same as the wings, and somewhat forked; legs pale brown.

The Bunting is very common in all parts of the country, and may be frequently observed on the highest part of a hedge, or uppermost branch of a tree, uttering its harsh and dissonant cry, at short intervals; they are heard and seen in these situations during the greater part of summer, after

which they are met with in flocks, and continue so during winter: they are often shot in great numbers, or caught in nets; and from the similarity of their plumage, are not unfrequently sold for Larks. The female makes her nest among the thick grass, a little elevated above the ground; she lays five or six eggs. Buffon observes, that in France the Bunting is seldom seen during winter, but that it arrives soon after the Swallow, and spreads itself through almost every part of Europe. Their food consists chiefly of grain; they likewise eat the various kinds of insects which they find in the fields and meadows.

THE BLACK-HEADED BUNTING.

REED BUNTING.

(Emberiza Schœniclus, Linn.—*Bruant de roseaux*, Temm.)

THIS is less than the Yellow Bunting. The eyes are hazel; the head, throat, fore part of the neck, and breast, are black, excepting a white line from each corner of the bill, passing downward a little, and forming a border which reaches the back part of the neck; the upper parts of the body and the wings are reddish brown, with a streak of black down the middle of each feather; the under part of the body is white, with brownish streaks on the sides; the rump and upper tail coverts bluish ash, mixed with brown; the quills are dusky, edged with brown; the two middle feathers of the tail are black, with pale brown edges; the rest wholly black, except the two outer ones, which are almost white, the ends tipped with brown, and the bases black; the legs reddish, toes dusky brown. The female has no collar: her throat is not so black,

and her head is variegated with black and rust colour; the white on her under parts is not so pure, but of a reddish cast.

Birds of this species frequent fens and marshy places, where there is abundance of rushes, among which they nestle. The nest is composed of dry grass, and lined with the soft down of the reed; it is fixed with great art between four reed stalks, two on each side, almost close to each other, and about three feet above the water. The female lays four or five eggs, pale bluish white, veined irregularly with purple, principally at the larger end. As its chief resort is among reeds, it is supposed that the seeds of that plant are its principal food: it is however frequently seen in the higher grounds near the roads, and sometimes in corn fields. They keep near the ground, and seldom perch except among the low bushes. The male, during the time of hatching, has a soft, melodious, warbling song, whilst he sits perched among the reeds, and is frequently heard in the night time. It is a watchful, timorous bird, and very easily alarmed; in captivity it sings but little, and only when perfectly undisturbed.

They are said to be migratory in France; with us they remain the whole year, and are seldom seen in flocks of more than three or four together. That from which the foregoing figure was taken, was caught during a severe storm in the middle of winter.

THE ORTOLAN BUNTING.

(Emberiza Hortulana, Linn.—*Bruant ortolan*, Temm.)

THE crew of a collier vessel caught this bird at sea, as it was making its way to the shore, on the Yorkshire coast, after a severe storm of wind in the month of May, 1822. It lived a short time after it was brought to land, and was lent to this work by G. T. Fox, Esq., and is now in the Museum of the Literary and Philosophical Society of Newcastle. It is about the size of the Yellow Bunting. The bill dark reddish; the head and neck, as far as the breast, pale olive green, slightly powdered with pale ash-grey. The chin and throat are pale greenish yellow; a streak of the same colour falls down from the corners of the lower mandibles, before the auriculars. The breast and belly are of a light rusty chesnut; the vent and

under coverts of the tail, the same, but of a paler or more dingy cast; the feathers on the back, scapulars, and greater and lesser coverts are very dark brown in the middle, but the rest of the webs are much lighter and of a rusty brown; the lower part of the back and upper coverts of the tail are also of the latter colour; the quills and tail feathers are deepish brown; the former edged with light brown: middle tail feathers the same; the rest plain, and the outer feathers are somewhat longer than the middle ones. The legs reddish yellow.

THE CIRL BUNTING.

(*Emberiza Cirlus*, Linn.—*Bruant zizi ou de haie*, Temm.)

LENGTH above six inches. Bill brown; the chin and throat dull black; upper part of the head and hinder part of the neck olive green; each feather streaked to the tip with dusky lines; the sides of the neck and breast yellowish green; the eyes are placed in a dusky line; a yellow streak passes above and beneath them; the auriculars are of the latter colour; from behind these a yellow gorget falls down over the forepart of the neck to the breast; back and scapulars reddish bay, which is spread over each side of the lower part of the breast; the feathers of the first are slightly streaked and tipped with dusky, and all edged with a lighter shade; the lesser coverts are ash-grey; the greater partake of that colour, but are tinged on the outer

webs with pale brown, and on the inner with dusky; the quills and tail dusky, with pale edges; the two outside feathers of the latter are the longest, and their inner webs have each a stripe of white from a part of their shafts to their tips; the belly is yellow, with some dusky stripes towards the sides; the legs are tinged with pale reddish brown.

Latham says that these birds are found only in the warmer parts of France and Italy, but Montagu made them out to be British birds. Our figure is from a well preserved specimen presented to the Newcastle Museum, by Mr. Henry Mewburn, of St. German's, Cornwall, where it was shot in 1822. This gentleman has besides ascertained that they breed in that neighbourhood, frequenting woods and high trees, and like the Common Bunting, generally perching near the top. They lay four or five greyish eggs, spotted and streaked with black.

It would appear that the Cirl is now spreading over the country. A pair, male and female, were shot November 28th, 1826, under the walls of Old Sarum Castle, and two other pairs were killed near Amesbury, Wilts. (Communicated by the Rev. G. T. Rudd, Kimpton Rectory.)

THE SNOW BUNTING.

SNOWFLAKE.

(*Emberiza Nivalis*, Linn.—*Bruant de neige*, Temm.)

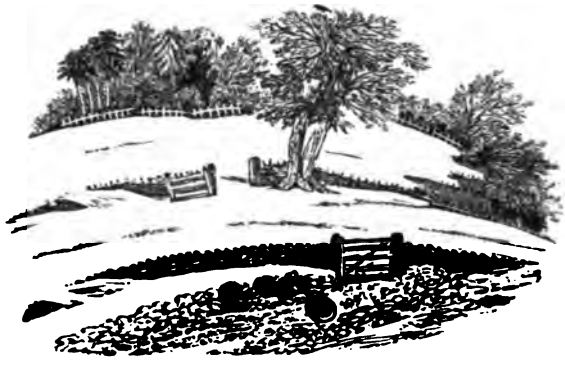
LENGTH nearly seven inches. Bill and eyes black; in summer the head, neck, coverts of the wings, rump, and all the under parts of the body are as white as snow, with a light tint of rusty colour on the hinder part of the head; the back and scapulars are black, fringed with white; the bastard wings black; the lesser coverts and the ends of the greater coverts white; the prime quills are black, secondaries white, with a black spot on their inner webs; middle feathers of the tail black, the three outer ones white, with a dusky striped spot near the ends, legs black. In winter it is different; the head, neck, and under parts of the body are marked with transverse waves of a rusty colour, of various shades, but never so deep as in

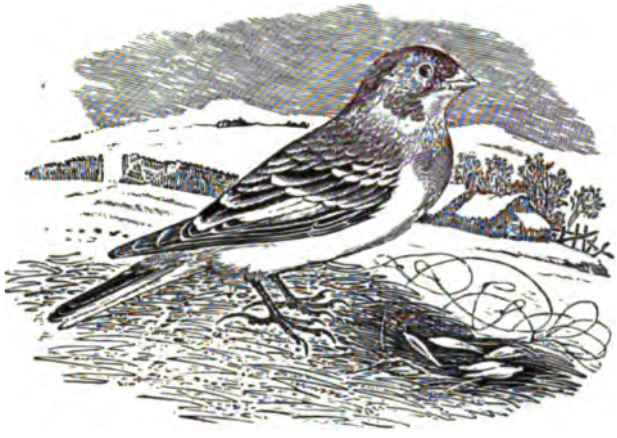
the female, in which this is the predominant colour; the white likewise upon the under parts of her body is less pure than that of the male. This is the description of an individual, but hardly two of them are alike.

Countries the most northerly, are, during the summer months, the favourite abodes of this hardy bird. With us it is chiefly met with in the northern parts of the island, where it is called the Snowflake; it appears in great flocks in the snowy season, and is said to be the certain harbinger of severe weather, which drives it from its usual haunts. This bird has been caught in various parts of Yorkshire, and is frequently met with in Northumberland: it is found in all the northern latitudes without exception, as far as our navigators have been able to penetrate. Great flocks have been seen upon the ice near the shores of Spitzbergen. They are known to breed in Norway, Iceland, and on the west coast of Greenland, at Hare Island. They were also found to be very numerous in the North Georgian Islands, where they are amongst the earliest arrivals. They have been kept in cages for two or three years, and feed freely on white bird seed. The female makes her nest in fissures of the rocks; the outside is composed of grass, within which is a layer of feathers, and the down of the arctic fox composes the lining of the comfortable little mansion; she lays five white eggs, spotted with brown.

These birds do not perch, but continue always on the ground, and run about like Larks, to which they are similar in size, manners, and in the length of their hinder claws, whence they have been

ranged with birds of that class by some authors, but are now with more propriety referred to the Buntings, from the peculiar structure of the bill. They are said to sing sweetly, sitting on the ground. On their first arrival in this country they are very lean; but soon grow fat, and are considered delicious food. The Highlands of Scotland abound with them.





THE SNOW BUNTING.

WINTER PLUMAGE.

BILL short, yellow, and blackish at the tip; crown of the head tawny; forehead chesnut; hinder part of the neck and cheeks the same, but paler; throat, sides of the neck, and space round the eyes dirty white; breast dull yellow; under parts white, in some tinged with yellow; the back and scapulars black, edged with reddish brown; quill feathers dusky, edged with white; secondaries white on the outer edges; greater coverts black, tipped with white, which, when the wing is closed, forms a patch of that colour upon it; upper tail coverts yellow; tail a little forked, the two outermost feathers white, the third black, tipped with white, the rest wholly black; legs short and black; hinder claws almost as long, but more bent than those

of the Lark. The foregoing figure and description were taken from a bird which was caught in the high moory grounds above Shotley-Kirk, Northumberland.

In former editions this bird has been described as the Tawny Bunting, but is now found to be the Snow Bunting (Emberiza nivalis), in winter plumage.

THE PARROT CROSS BILL.

(*Loxia Pityopsittacus*, Bechst.—*Bec-croisé perroquet*, Temm.)

THE above figure was taken from a preserved specimen obligingly lent to this work by Sir William Jardine, Bart. The bird was shot in Ross-shire, in 1822. In Mr. Selby's splendid work on Ornithology, so creditable to his zeal in the cause of science, this bird occupies a distinct place, agreeably to M. Temminck's arrangement. The bill is dark horn colour; irides hazel: the predominant colour is red, rather clouded on the back, and more or less mixed with green on the breast, belly, and vent; hinder part of the neck is mixed with dark ash; the wings and tail dusky, each feather distinctly edged either with a pale colour, or with pale green; the legs and toes dusky; claws

hooked, and rather strong. Scarcely two of these birds are alike in plumage, the crossings of their bills also vary in different individuals; some of them being crossed over to the right, and others to the left side. They chiefly inhabit the countries within the arctic circle, where the greater number remain to breed. In winter they spread themselves over the great pine forests of Poland, Prussia, and Germany, and return to the north in summer. In France and Holland, it is a bird of passage. Its food is the seeds of the pine and alder.

THE CROSS-BILL.

SHELL-APPLE.

(Loxia Curvirostra, Linn.—*Bec Croisé des pins*, Temm.)

Is about the size of a Lark, being nearly seven inches in length. It is distinguished by the peculiar formation of its bill, the upper and under mandibles curving in opposite directions, and crossing each other near the points; its eyes are hazel; the general colour is reddish, mixed with brown on the upper parts; the under parts are considerably paler, being almost white at the belly and vent; the wings are short, not reaching farther than the tail coverts, and brown; the tail is of the same colour, and somewhat forked; legs black. Individuals vary in the colours of their plumage; among

a great number hardly two are exactly similar; they likewise vary with the season, and according to the age of the bird. Edwards paints the male bird of a rose colour, and the female of a yellowish green, mixed more or less with brown. Both sexes appear very different at different times of the year.

The Cross-bill is an inhabitant of the colder climates, and has been found as far north as Greenland. It breeds in Russia, Sweden, Poland, and Germany, in the mountains of Switzerland, and among the Alps and Pyrenees, whence it migrates in vast flocks into other countries. It sometimes is met with in great numbers in this country, but its visits are not regular,* as in some years it is rarely

* We have met with it on the top of Blackstone-edge, between Rochdale and Halifax, in the month of August. Mr. Dovaston informs us many hundreds visited England in flights of about 20, 30, or more, in 1821; he first observed them early in August at Oxford, Stratford-upon-Avon, and other places.

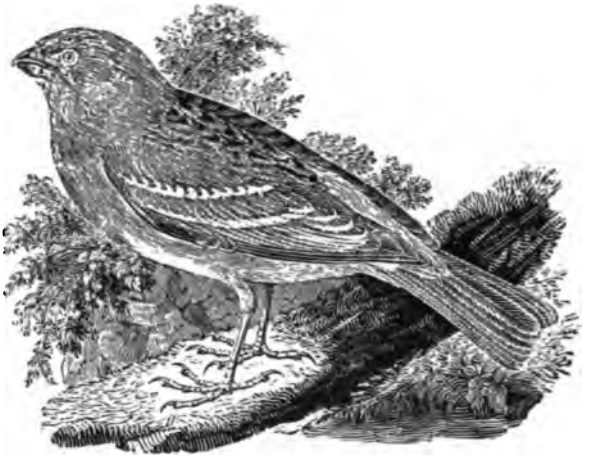
"In 1254, in the fruit season, certain wonderful birds, which had never before been seen in England, appeared, chiefly in the orchards. They were a little bigger than Larks, and eat the pippins of the apples [pomorum grana], but no other part of them, on which account they were extremely prejudicial, as they deprived the trees of their fruit. They had the parts of the beak crossed [cancellatas] by which they divided the apples as with a forceps or knife. The parts of the apples which they left were as if they had been infected with poison."—*Matt. Paris, p. 824.*

The following account is given by the author of Additions to the Addittamenta of Matt. Paris, to whom it was supplied by Sir Roger Twysden, Baronet:—

"Memorandum, that in the apple season in 1593, an immense multitude of unknown birds came into England, and though the fruit was then pretty well ripened, they entirely neglected its pulp, swallowing nothing but the pippins [granella ipsa sive acinos], and for the purpose of dividing the apple, their beaks were admirably

to be seen. Its principal food is said to be the seeds of the pine tree; it is observed to hold the cone in one claw like the Parrot, and when kept in a cage, has all the actions of that bird, climbing, by means of its hooked bill, from the lower to the upper bars of its cage. From its mode of scrambling, and the beauty of its colours, it has been called by some the German Parrot. The female is said to begin to build as early as January; she places her nest under the bare branches of the pine, fixing it with the resinous matter which exudes from that tree, and besmearing it on the outside with the same substance, so that the melted snow or rain cannot penetrate it.

adapted by nature, for they turn back, and strike one point upon the other, so as to show the extremity of the hooks, or rather of the transverse sickles, one turned past the other. Indeed (and what is a rare thing to be observed) in the males the hooked point of the upper bill is curved downwards upon the lower; whereas in the female the inferior point bends upwards upon the other. The size of the body is about that of the Linnet or Bullfinch. The female is of the colour of the female Bullfinch. The males have very strong and very beautiful feathers, most part of the breast, the back, and the head being either of a pleasing yellow or an elegant red. Nobody had seen such birds, or had heard of them from the oldest persons; and what in them is chiefly to be admired, they were so tame, gentle, and innocent, that they seemed to have flown hither from some desert wholly uninhabited by man, for they were not affrighted till they had been once driven off. They suffered themselves patiently to be attacked with slings and cross-bows, never thinking of flying off till some of them, stricken by stones, or apples, or leaden bullets, fell dead from the trees. Their flesh was sufficiently savoury and delicate. Finally, whether they came here in quest of the food they lived upon or not, as soon as the apples were gone they all disappeared, but no one knows whither they went."—*Vit. 2 Offar., &c., p. 262.*



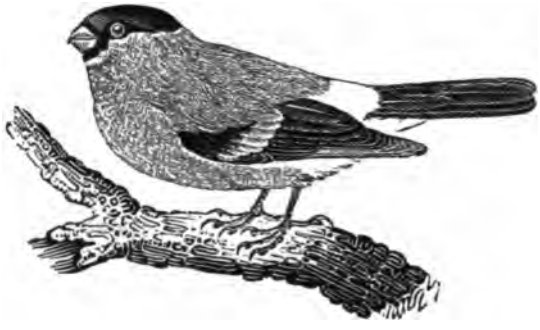
THE PINE GROSBEAK.

GREATEST BULLFINCH.

(*Pyrrhula Enucleator*, Temm.—*Bouvreuil dur-bec*, Temm.)

LENGTH nine inches. Bill dusky, very stout at the base, and somewhat hooked at the tip; head, neck, breast, rump, and sides rose-coloured crimson; back and wing coverts deep brown, each feather edged with pale reddish brown; and the greater and lesser coverts tipped with dull white, forming a bar on the wing; the quills are nearly black, with pale edges; the secondaries the same, but edged with white; the belly and vent are straw-coloured; the tail is marked as the quills, and is somewhat forked; the legs are brown.

They are found only in the northern parts of this island and of Europe; are common in various parts of North America, visiting the southern settlements in the winter, and retiring northwards in the summer to breed: like the Cross-bill, they frequent pine forests, and feed on the seeds of that tree. They build on trees, at a small distance from the ground, and lay four white eggs, which are hatched in June.



THE BULLFINCH.

ALP, OR NOPE.

(Pyrrhula Vulgaris, Temm.—*Bouvreuil commun* Temm.)

THE bill is dusky; eyes black; the upper part of the head, the ring round the bill, and the origin of the neck fine glossy black;* the back ash-grey; breast and belly red; wings and tail black; the upper tail coverts and vent are white; legs dark brown. The female is very like the male, but the colours are less bright, and the under parts of a reddish brown.†

This bird is common in every part of our island, as well as in most parts of Europe; its usual

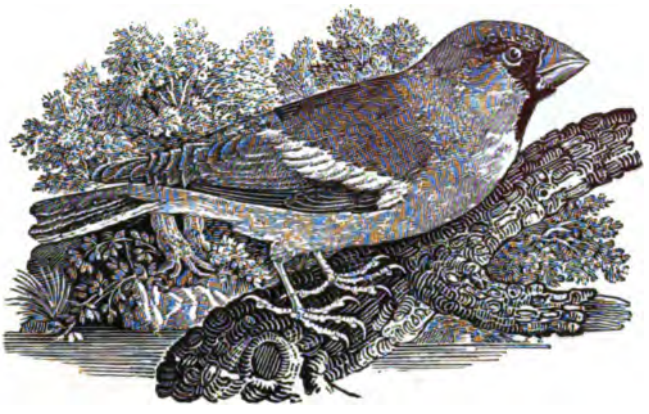
* Hence in some countries it is called *Monk* or *Pope*, and in Scotland it is not improperly denominated *Coally-hood*.

† The Bullfinch sometimes changes its plumage, and becomes wholly black during its confinement, especially when feed with hemp seed. In the British Museum there is a variety of the Bullfinch entirely white: we have seen others in the same plumage.

haunts, during summer, are woods and thickets, but in winter it approaches nearer to cultivated grounds, and feeds on seeds, winter berries, &c.: in the spring it frequents gardens, where it is usefully busy in destroying the worms which are lodged in the tender buds. The female makes her nest in bushes; it is composed chiefly of moss; she lays five or six eggs, of a dull bluish white, marked at the larger end with dark spots. In a wild state, its note is very simple; but when kept in a cage, its song, though in an under subdued tone, is far from being unpleasant. Both male and female may be taught to whistle a variety of tunes. They are frequently imported into this country from Germany, where they are taught to articulate, with great distinctness, several words.

Of the Finch.

Of this family many are distinguished as well for the liveliness of their song, as for the beauty and variety of their plumage, on which account they are much esteemed. They are very numerous, and assemble sometimes in immense flocks, feeding on various kinds of seeds and grain, as well as on insects and their eggs. The beak of the Finch is conical, very thick at the base, and tapering to a sharp point.



THE GROSBEAK.

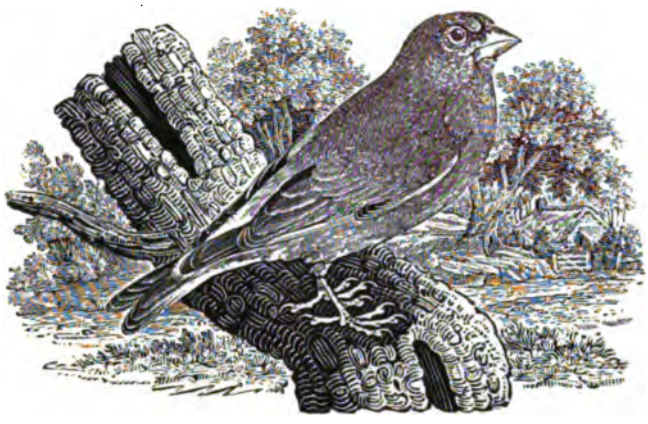
HAWFINCH.

(Fringilla Coccothraustes, Temm.—*Gros-bec vulgaire*, Temm.)

LENGTH nearly seven inches. Bill of a horn colour, conical, and prodigiously thick at the base; eyes ash-grey; the space between the bill and the eye, and thence to the chin and throat, is black; the top of the head reddish chesnut, as are also the cheeks, but somewhat paler, back part of the neck greyish ash; the back and lesser wing coverts chesnut; the greater wing coverts grey, in some almost white, forming a band across the wing; the quills are all black, excepting some of the secondaries nearest the body, which are brown; the four outer quills seem as if clipped off at the ends; the primaries have each a spot of white about the middle of the inner web; breast and belly pale

rusty, fading almost to white at the vent; the tail is slightly forked, the outside feathers are black at the base and tipped with white; the two middle feathers are a little shorter than the others, and of a greyish brown; legs pale brown. The female greatly resembles the male, but her colours are less vivid, and the space between the bill and the eye is grey instead of black.

This species is an inhabitant of the temperate climates, from Spain, Italy, and France, as far as Sweden. It breeds in this country, but is no where numerous. Buffon says it is a shy and solitary bird, with little or no song; it generally inhabits the woods during summer, and in winter resorts near the hamlets and farms. The female builds her nest in trees, of small twigs mixed with white lichens. The eggs are of an oval form, streaked and spotted with bluish black on a greyish ground. She feeds her young with insects, chrysalids, and other soft nutritious substances.



THE GREEN GROSBEAK.

GREEN FINCH, OR GREEN LINNET.

(*Fringilla Chloris*, Temm.—*Gros-bec verdier*, Temm.)

THE bill is of a pale reddish brown, or flesh colour; eyes dark; plumage in general yellowish green; the top of the head, neck, back, and lesser coverts olive green; the greater coverts and outer edges of the secondary quills ash-grey; vent and tail coverts the same, dashed with yellow; rump yellow.

These birds are common in every part of Great Britain. They do not migrate, but change their quarters according to the season of the year. They keep together in small flocks during the extremity of winter, when they draw to the shelter of villages and farm yards, and disperse to breed in the spring. The female makes her nest in trees,

hedges, or low bushes; it is composed of dry grass, and lined with hair, wool, and other warm materials; she lays five or six eggs, of a pale greenish colour, marked at the larger end with spots of a reddish brown; she is so close a sitter during the time of incubation, that she may sometimes be taken on her nest. The male is very attentive to her during that time, and takes his turn in sitting. Though not distinguished for its note, which is short, plaintive, and monotonous, this bird is sometimes kept in a cage, and soon becomes familiar.

THE SPARROW.

(Fringilla Domestica, Linn.—*Gros-bec moineau*, Temm.)

THE length of this bird is five inches and three-quarters: bill dusky, eyes hazel; the top of the head and back part of the neck ash-grey; the throat, fore part of the neck, and space round the eyes black; the cheeks whitish; the breast and all the under parts pale ash; the back, scapulars, and wing coverts are reddish brown, mixed with black —the latter tipped with white, forming a light bar across the wing; the quills are dusky, with reddish edges; tail brown, edged with grey, and a little forked; legs pale brown. The female is distinguished from the male by wanting the black patch on the throat, and by having a little streak behind each eye; her whole plumage is also much plainer and duller.

This bird, as seen in large smoky towns, is generally dirty and unpleasant in its appearance; but among barns and stack-yards the cock bird exhibits an agreeable variety in his plumage, and is far from being the least beautiful of British birds.

The Sparrow is subject to great varieties of colour: in the British Museum there are several white ones, with yellow eyes and bills, others more or less mixed with brown, and some entirely black. A pair of white Sparrows were sent to this work, by Raleigh Trevelyan, Esq., of Netherwitton.

In no country is the Sparrow found in desert places, or at a distance from the dwellings of man. It does not, like other birds, shelter itself in woods and forests, or seek its subsistence in uninhabited plains, but is a resident in towns and villages; it follows society, and lives at its expence: granaries, barns, court-yards, pigeon-houses, and, in short, all places where grain is scattered, being its favourite resorts. Count de Buffon says, "It is extremely destructive, its plumage is entirely useless, its flesh indifferent food, its notes are grating to the ear, and its familiarity and petulance disgusting." But let us not condemn a whole species, because we have in some instances, found them troublesome or inconvenient. The uses to which they are subservient, in the grand economy of nature, we cannot so easily ascertain.* We have already observed, that, in the destruction of caterpillars, they are eminently serviceable to vegetation, and in this respect alone, there is reason to

* Buffon says the number of caterpillars a pair of Sparrows will destroy in feeding their young, amounts to about 4000 weekly.

suppose, sufficiently repay the trivial damage they may make either in the garden or the field. The great table of nature is spread out alike to all, and is amply stored with every thing necessary for the support of the various families of the earth; it is owing to the superior intelligence and industry of man, that he is enabled to appropriate so large a portion of the best gifts of Providence to his own subsistence and comfort; let him not then grudge their pittance, nor think it waste, that, in some instances, creatures inferior in rank are permitted to partake; but, considering them only as the tasters of his full meal, let him endeavour to imitate their cheerfulness, and lift up his heart in grateful effusions to HIM "who filleth all things living with plenteousness."

The Sparrow never leaves us, but is familiar to the eye at all times, even in the most crowded and busy parts of the town; they build under the eaves of houses, in holes of walls, and often about churches. The nest is made of hay, carelessly put together, and lined with feathers. The female lays five or six eggs, of a reddish white, spotted with brown; she has generally three broods in the year, whence the multiplication of the species must be great. In autumn large flocks of them are seen every where, both in town and country. Though familiar, the Sparrow is a crafty bird, easily distinguishing the snares laid to entrap it; they often mix with other birds, and not unfrequently partake with the Pigeons or the poultry, in spite of every precaution to prevent them.

THE MOUNTAIN SPARROW.

TREE SPARROW.

(Fringilla Montana, Linn.—*Gros-bec friquet* Temm.)

THIS bird is somewhat less than the common Sparrow. Bill black; eyés hazel; the crown of the head and hinder part of the neck chesnut brown; sides of the head white; throat and auriculars black; on the upper plumage the middle of the feathers are dusky, edged with rusty brown; the breast and under parts dirty white; quills black, with reddish edges, as are also the greater coverts; the lesser coverts black, edged with bay, and crossed with two white bars; the tail is reddish brown, and even at the end; legs pale yellow.

This species is much more plentiful on the continent than in England, where it is seldom seen further north than Yorkshire; it differs from the House Sparrow in making its nest in the holes of trees far from towns or villages. It feeds on fruits, seeds, and insects. It is a lively, active bird, and, when it alights, has a variety of motions, whirling about and jerking its tail upwards and downwards, like the Wagtail.

THE CHAFFINCH.

SHILFA, SCOBBY, SKELLY, OR SHELL-APPLE.

(Fringilla Cœlebs, Linn.—*Gros-bec pinson*, Temm.)

THE bill is pale blue, tipped with black; eyes hazel; forehead black; the crown of the head, and the hinder part and sides of the neck bluish ash; sides of the head, throat, fore part of the neck, and the breast vinaceous red; belly, thighs, and vent white, slightly tinged with red; the back is reddish brown, changing to green on the rump; both greater and lesser coverts are dusky, tipped with white, forming two pretty large bars across the wing; the bastard wing and quill feathers are black, edged with yellow; the tail is a little forked, and black, the outermost feather edged with white; legs brown. The female wants the red upon the breast; her plumage in general is not so vivid, and inclines to green; in other respects it is not much unlike that of the male.

This beautiful bird is every where well known; it begins its short and frequently-repeated song

early in spring, and continues it till about the summer solstice, after which it is no more heard. It is a lively bird, which with its elegant plumage, has given rise to the proverb, "*as gay as a Chaffinch.*" The nest is remarkably neat and compact, and constructed with much art, of small fibres, roots, and moss, and lined with wool, hair, and feathers; the female generally lays five or six eggs, slightly blushed with red, and sprinkled with dark spots, principally at the larger end. The male is very assiduous in his attendance during the time of hatching, seldom straying far, and then only to procure food. Chaffinches subsist chiefly on small seeds; likewise on caterpillars and insects, with which they also feed their young. They are seldom kept in cages, as their song possesses no variety, and they are not apt in learning the notes of other birds. The males frequently maintain obstinate combats, and fight till one of them is vanquished. In Sweden these birds perform a partial migration; the females collect in vast flocks in the latter end of September, and, leaving their mates, spread themselves through the various parts of Europe; the males continue in Sweden, and are again joined by their females, who return about the beginning of April. In the north of England, both males and females remain the whole year. White, in his history of Selborne, observes that great flocks appear in that neighbourhood about Christmas, and that they are almost entirely hens. It would appear that such a habit is not peculiar to this bird, many others doing the same.

THE MOUNTAIN FINCH.

BRAMBLING.

(*Fringilla Montifringilla*, Linn.—*Gros-bec des Ardennes*, Temm.)

LENGTH somewhat above six inches. Bill yellow, blackish at the tip; eyes hazel; the feathers on the head, neck, and back are black, edged with rusty brown; sides of the neck, just above the wings, blue ash; rump white; throat, fore part of the neck, and breast, pale orange; belly white; lesser wing coverts pale reddish brown, edged with white; greater coverts black, tipped with pale yellow; quills dusky, with pale yellowish edges; the tail is forked, the outermost feathers edged with white, the rest black, with whitish edges; legs pale brown.

The Mountain Finch is a native of northern climates, whence it spreads into various parts of Europe: it arrives in this country the latter end of summer, and is most common in the mountainous parts of our island.* Vast flocks of them sometimes come together; they fly very close, and on that account great numbers are frequently killed at one shot. In France they are said to appear sometimes in such immense numbers, that the ground where they have roosted, has been covered with their dung for a considerable space; in one year they were so numerous, that more than six hundred dozen were killed each night during the greater part of the winter. They build their nests in fir trees, at a considerable height; it is composed of long moss, lined with hair, wool, and feathers; the female lays four or five eggs, white, spotted with yellow. Its song is only a disagreeable kind of chirping. It feeds on various kinds of seeds, and is said to be particularly fond of beech mast.

* We have seen them on the Cumberland Hills in the middle of August.

THE LINNET.

GREATER REDPOLE, OR RED HEADED LINNET.

(*Fringilla Cannabina*, Linn.—*Gros-bec linotte*, Temm.)

THE length is five and a half inches; breadth nine and three quarters. The bill is thick at the base; the upper mandible dusky, the under one whitish. A pale brownish streak passes from the bill over and below each eye; the irides are dark; on the crown of the head is a bright crimson or lake-red spot; the rest of the head is ash-grey, striped with brown on the back part, and mottled with the same colours on the brow, and on each side of the crown; the chin is yellowish; the hinder part and sides of the neck are dingy ash; the fore part dull white, spotted with dark brown. The breast is of the same brilliant red as the crown of the head; the sides are pale reddish brown, fading into a dull white in the middle of the belly from the breast to the vent; the back, scapulars,

and coverts of the wings are bright reddish brown, the middle of the feathers somewhat darker than the rest of the webs; the first quill feather is black, the eight next to it are the same, but white half their length on both the exterior and interior edges, the latter of which form a stripe of that colour when the wing is closed. The tail is forked; the two middle feathers are narrow and pointed towards the tip, and wholly black; the rest are also black, but edged with white on both the outer and inner edges; the legs are dull brown. The female is without the red on her head and breast; in other respects her plumage is nearly the same as that of the male, but much less brilliant.

This charming bird is very well known, being common in every part of Europe. In a wild state it wastes the sweetness of its song on "the desert air," amidst "the blossomed furze, unprofitably gay," on the fells or heathy wastes which it almost constantly inhabits. There they build and rear their young, concealed in the prickly close branches of the whin. The nest is composed of the stems of dry grass, mixed with a little moss, and lined with horse hair. The female commonly lays five eggs; they are white, with a zone of freckles and small brown spots near the thicker end; she breeds generally twice in the year.

THE LINNET.

BROWN OR GREY LINNET.

WINTER PLUMAGE.

THE bill bluish grey; eyes hazel; upper parts of the head, the neck, and back, dark reddish brown; edges of the feathers pale; under parts dirty reddish white; breast deeper than the rest, sides streaked with brown; quills dusky, edged with white; tail brown, likewise with white edges, except the two middle feathers, which have reddish margins; it is somewhat forked; legs short and brown.

The song of the Linnet is lively and sweetly varied; its manners are gentle, and its disposition docile; it easily adopts the song of other birds, when confined with them, and in some instances it has been taught to pronounce words with great distinctness; but this substitution of imperfect

and forced accents, which have neither charms nor beauty, in the room of the free and varied modulations of uninstructed nature, is a perversion of its talents. Linnets are frequently seen in flocks during the winter, and their assembling with other kinds of small birds is a sure presage of the coming storm, with which that gloomy season sets in; they feed on various seeds, and are particularly fond of lintseed, from which circumstance, it is said, they derive their name.

THE MOUNTAIN LINNET.

TWITE.

(*Fringilla Montium*, Linn.—*Gros-bec de montagne*, Temm.)

A pair of these birds, male and female, with their nest and six eggs, were obligingly presented to this work, by the author's late pupil, Mr. John Laws, of Heddon Laws, Northumberland. He shot them on Callerton Fell, near their nest, on the 15th June, 1821; their stomachs were filled with the seed of the dandelion. The male measured, stretched out, five inches in length, and nine in breadth; the female was a little larger. The bill is thick and short, of a pale flesh red; nostrils covered with a hairy kind of feathers; irides hazel; the space above and below the eye pale tawny brown; the throat and fore part of the neck the same; the sides and hinder part of the latter whitish spotted with brown. The whole of the

upper plumage is of a darker cast than the rest of this genus, the middle of the feathers being dusky, edged with dull pale brown; the greater coverts tipped with white; the primary and secondary quills dusky, the former slightly edged on the exterior webs with pale brown, the latter with white; the tail is forked, and of a very dark brown, slightly edged half way to the tips with a lighter colour; and towards the base the outer webs are more distinctly margined with white, and the inner webs are still more deeply edged with that colour. The rump is bright lake coloured crimson; the breast and sides are pale dull brown, rather indistinctly marked with spots and stripes of a darker shade; the belly is of a pale silvery *blea;* the vent feathers white, with a streak of black down the middle one; the legs and toes dusky. The female nearly resembles the male, only she is without the red feathers of the rump. These birds frequent the solitary wastes of moors and fells, and make their nest in the whin bushes, or near the tops of the tallest heath, with which these places abound. The nest is composed of a great quantity of moss and dry grass, and slightly lined with wool and feathers; the eggs are pale bluish green, spotted with brown. Latham treats of the Twite as a variety of the mountain Linnet, while Pennant accounts it to be of the same species.

THE LESSER REDPOLE.

(Fringilla Linaria, Linn.—*Gros-bec sizerin*, Temm.)

LENGTH about five inches. Bill pale brown, tip dusky; eyes hazel; the forehead is marked with a large pretty spot, of a deep red inclining to purple; the breast is of the same colour, but less bright; the feathers on the back are dusky, edged with pale brown; the greater and lesser coverts tipped with dirty white, forming two light bars across the wing; the belly and thighs dull white; the quills and tail dusky, edged with dirty white; the latter somewhat forked: legs dusky. In our bird the rump was reddish. The female has no red on the breast or rump, and the spot on her forehead is of a saffron colour; her plumage in general is not so bright as that of the male.

This species is found in every part of Europe. In America and the northern parts of Asia it is likewise very common. They are not unfrequent

in this island; they breed chiefly in the northern parts, and are known by the name of French Linnets. They make a shallow open nest, composed of dried grass and wool, lined with hair and feathers; the female lays four eggs, almost white, marked with reddish spots. In winter they mix with other birds, and migrate in flocks to the southern counties; they feed on small seeds of various kinds, especially those of the alder, of which they are extremely fond: they hang like the Titmouse, with their back downwards, upon the branches, while feeding, and in this situation may easily be caught with lime twigs.

THE SISKIN.

ABERDEVINE.

(Fringilla Spinus, Linn.—*Gros-bec tarin*, Temm.)

LENGTH nearly five inches. Bill white; eyes black; top of the head and throat black; over each eye there is a pale yellow streak; back of the neck and the back yellowish olive, marked with narrow dusky streaks down the middle of each feather; rump yellow; under parts greenish yellow, palest on the breast; thighs grey, marked with dusky streaks; greater wing coverts pale yellowish green, tipped with black; quills dusky, faintly edged with yellow, the outer web of each at the base fine pale yellow, forming, when the wing is closed, an irregular bar across it; the tail is forked, the middle feathers black, with faint edges, the outer ones yellow, with black tips; legs pale brown; claws white.

The foregoing figure and description were taken from one which was caught on the banks of the

Tyne, and kept some years afterwards in a cage; its song, though not so loud as that of the Canary, was pleasing and sweetly varied; it imitated the notes of other birds, even to the chirping of the Sparrow; it was familiar, docile, and cheerful, and began its song early in the morning. Like the Goldfinch, the Siskin may easily be taught to draw up its little bucket with water and food. The latter consists chiefly of seeds; it drinks frequently, and seems fond of throwing water over its feathers. It breeds freely with the Canary. When the Siskin is paired with the hen Canary, he is assiduous in his attention to his mate, carrying materials for the nest, and arranging them; and, during the time of incubation, regularly supplying the female with food.

These birds are common in various parts, chiefly of the north of Europe; in most places they are migratory, but do not seem to observe regular periods, as they are sometimes seen in large, and at other times in very small numbers. Buffon observes that those immense flights happen only once in the course of three or four years. They conceal their nest with much art. Kramer says, that in the forests bordering on the Danube, thousands of young Siskins are frequently found, which have not dropt their first feathers, and yet it is rare to meet with a nest. They are not known to breed in this island, nor is it said from whence they come over to us. In some parts of the south it is called the Barley-bird, being seen about that seed time; and in the neighbourhood of London it is known by the name of the Aberdevine.

THE CANARY FINCH.

(*Fringilla Canaria*, Linn.—*Le Serin des Canaries*, Buff.)

Is about five inches and a half in length. Bill pale flesh red; general colour of the plumage yellow, more or less mixed with grey, and in some with brown on the upper parts; tail long and somewhat forked; legs pale flesh colour.

In this country they are never seen but in a state of captivity. In a wild state they are found chiefly in the Canary Islands, whence they have been brought to almost every part of Europe. Buffon enumerates twenty-nine varieties, and many more might probably be added to the list, were all the changes incident to a state of domestication carefully noted and brought into the account. The breeding and rearing of these charming birds form an amusement of the most pleasing kind, and afford a variety of scenes highly interesting and gratifying. In the places fitted up and accommodated to the use of the little captives, we are delighted to see the workings of nature exemplified in the choice of their mates, building their nests, hatching and rearing their young, and in the impassioned ardour exhibited by the male, whether he is engaged in assisting his faithful mate in collecting materials for her nest, in arranging them for her accommodation, in providing food for her offspring, or in chaunting his lively and amorous songs during every part of the important business. The Canary will breed

freely with the Siskin and Goldfinch, particularly the former, as has been already observed; it likewise proves prolific with the Linnet, but not so readily: and admits also the Chaffinch, Yellow Bunting, and even the Sparrow, though with still more difficulty. In all these instances, excepting the first, the pairing succeeds best when the female Canary is introduced to the male of the opposite species. According to Buffon, the Siskin is the only bird of which the male and female propagate equally with those of the male or female Canaries.

This author, in his History of Birds, has given a curious account of the various methods used in rearing these little songsters, to which the reader is referred. We have thought it necessary to say so much of a bird, which, though neither of British origin, nor a voluntary visitor, must yet be considered as ours by adoption.*

* The importation of Canaries forms a small article of commerce; great numbers are every year imported from Tyrol; four Tyrolese usually bring over to England about sixteen hundred of these birds; and though they carry them on their backs one thousand miles, and pay twenty pounds duty for such a number, they are enabled to sell them at five shillings a-piece.—*Phil. Trans., vol. 62.*

THE GOLDFINCH.

GOLDSPINK, OR THISTLE FINCH.

(*Fringilla Carduelis*, Linn.—*Gros-bec chardonneret*, Temm.)

THE bill is white, tipped with black; the forehead and chin a rich scarlet, which is divided by a black patch passing from each corner of the bill to the eyes, which are dark; the cheeks are white; top of the head black, which colour extends downward from the nape on each side, dividing the white on the cheeks from the white spot on the hinder part of the neck; the back and rump are cinnamon brown; the sides the same, but paler; belly white; lesser wing coverts black; quills black, marked in the middle of each feather with yellow, forming, when the wing is closed, a large patch; the tips white; the tail feathers are black, with a white spot on each near the end; legs pale flesh red.

Beauty of plumage, says the lively Count de Buffon, melody of song, sagacity, and docility of disposition seem all united in this charming little bird, which, were it rare, and imported from a foreign country, would be more highly valued. Goldfinches begin to sing early in the spring, and continue till the time of breeding is over. When kept in a cage, they will sing the greater part of the year. In a state of confinement they are very engaging, being much attached to their keepers, and will learn a variety of little tricks, such as to draw up small buckets containing their water and food, to fire a cracker, and such like. They construct a neat and compact nest, which is composed of moss, dried grass, and roots, lined with wool, hair, the down of thistles, and other soft and delicate substances. The female lays five white eggs, marked at the larger end with spots of deep purple. They feed their young with caterpillars and insects; the old birds feed on various kinds of seeds, particularly those of the thistle, and occasionally on the seeds of the Scotch fir.

Goldfinches breed with the Canary; this intermixture succeeds best between the cock Goldfinch and the hen Canary, whose offspring are productive, and are said to resemble the male in the shape of the bill, and in the colours of the head and wings, and the hen in the rest of the body.

THE CUCKOO.*

GOWK.

(Cuculus canorus, Linn.—*Coucou gris*, Temm.)

LENGTH fourteen inches; breadth twenty-five; the bill is black and somewhat bent; eyes yellow; inside of the mouth red; its head, neck, back, and wing coverts pale blue, darkest on the head and back, and palest on the fore part of the neck and rump; breast and belly white, elegantly crossed with wavy bars of black; the quill feathers are dusky, their inner webs marked with large oval white spots; the tail is long; the two middle feathers black, with white tips;

* This bird is placed by Temminck first, in his order Zygodactyles, which includes three British genera, viz., the Cuckoo, the Woodpecker, and the Wryneck.

the others dusky, marked with alternate spots of white on each side of the shaft; legs short and yellow; toes, two forward, two backward: the outer one capable of being directed forward or backward at pleasure; claws white.

The Cuckoo visits us early in the spring; the well known cry of the male is commonly heard about the middle of April, and ceases at the end of June; its stay is short, the old birds quitting this country early in July.

Whether Cuckoos pair is not known, but it is certain that they build no nest; and what is more extraordinary, the female deposits one of her eggs (of which she lays from four to six during the season) in the nest of some other bird, by whom it is hatched. The nest usually chosen for this purpose is that of the Titlark, and it is said also in those of the Hedge Sparrow, Water Wagtail, Yellow-hammer, Green Linnet, or Whinchat; the first is more certainly known to be preferred.*

We owe the first satisfactory account† of the singular economy of this bird, in the disposal of its egg, to Mr. Edward Jenner, afterwards Dr. Jenner, the illustrious discoverer of Vaccination. The following being the result of repeated observations and experiments, accurately made by himself, we shall detail it as nearly as possible in his own words.

During the time the Hedge Sparrow is laying her eggs, which generally takes up four or five

* The author could never find the egg of the Cuckoo deposited in any nest but in that of a Lark, which is always on the ground.

† Vide Transactions of the Royal Society, Vol. LXXVIII., Part II. 1787.

days, the Cuckoo contrives to deposit her egg among the rest, leaving the future care of it entirely to the Hedge Sparrow. This intrusion often occasions discomposure, for the Hedge Sparrow at intervals, whilst sitting, not only throws out some of her own eggs, but injures others in such a way, that they become addle, so that not more than two or three of them are hatched along with that of the Cuckoo, and what is very remarkable, she never throws out or injures the egg of the intruder. When she has disengaged the young Cuckoo and her own offspring from the shell, her young ones, and any of her eggs that remain unhatched, are soon turned out by the young Cuckoo, who then remains in full possession of the nest, and becomes the sole object of the care of its foster parents. The young birds are not previously killed, nor the eggs demolished, but all are left to perish together, either entangled in the bush, which contains the nest, or lying on the ground near it. The mode of accomplishing the ejectment is curious: the Cuckoo very soon after being hatched, and consequently while it is yet blind, contrives with its rump and wings to get the Hedge Sparrow, or the egg, upon its back, and making a lodgement for its burden by elevating its elbows, clambers backwards with it up the side of the nest, till it reaches the top, where, resting for a moment, it throws off its load with a jerk, and quite disengages it from the nest; after remaining a short time in this situation, and feeling about with the extremities of its wings, as if to be convinced that the business has been properly executed, it drops into the nest again.

Nature seems to have provided, even in the formation of the Cuckoo, for the exercise of this peculiar instinct, for unlike other newly hatched birds, its back, from the scapulæ downwards, is very broad, with a considerable depression in the middle, as if for the purpose of giving a more secure lodgment to the egg, or the young bird, while the intruder is employed in removing either of them from the nest; when about twelve days old, this cavity is filled up, the back assumes the shape of nestling birds in general, and the disposition for turning out any bird or substance placed in the nest, entirely ceases. The smallness of the Cuckoo's egg is another circumstance deserving attention in this surprising transaction; in size and appearance, it differs little from the egg of the Sky Lark and Titlark, though the disparity of bulk of the birds be very great; in short, every thing conspires, as might be expected, to render perfect the design which is to be accomplished by the seemingly unnatural propensity of this bird.

When it happens, as it sometimes does, that two Cuckoo's eggs are deposited in the same nest, and are hatched along with those of the Hedge Sparrow's, a contest commences in a few hours between the Cuckoos for the possession of the nest. In one of these contests, which Dr. Jenner had an opportunity of watching narrowly, and which was continued for more than a day, the combatants alternately appeared to have the advantage, each having carried the other several times nearly to the top of the nest, and then sunk down oppressed with the weight of its burthen, till at last, one

which was somewhat superior in size, turned out the other, together with a young Hedge Sparrow, and an unhatched egg.

Young Cuckoos differ so much in plumage from the old, that they have sometimes been mistaken for a different species. In the young birds, the bill, legs, and tail, are nearly the same as those of the old; iris blue; throat, neck, breast, and belly, elegantly barred with dark brown, on a light ground; the back is lead grey, mixed with brown, and faintly barred with white; the tail feathers irregularly marked with black, light brown, and white, and tipped with white; legs yellow. They continue three weeks in the nest before they fly, and the foster parents feed them five weeks after this period. Their growth is very rapid. They migrate probably in succession, about the end of August, or beginning of September, and undergo their first moult during their absence.

The Cuckoo is said to be a fierce pugnacious bird. Its principal food consists of hairy caterpillars, also of grasshoppers, snails, May bugs, &c., of which it disgorges the hard parts after digestion, in the same manner as birds of prey. It also is said to eat the eggs of other birds.

The Woodpeckers.

Of these only four or five species have been noticed in Great Britain. Their characters are striking, and their manners singular. The bill is large, strong, and fitted for its employment: the end of it is sharp and formed like a wedge, with which it pierces the bark of trees, and penetrates through the outside sound wood of the tree to the inside decayed part, where its food is lodged. Its neck is short and thick, and furnished with powerful muscles, which enable it to strike with such force as to be heard at a considerable distance: the noise thus occasioned is not by vibration round a hole, as some authors assert, but by a succession of strokes repeated with surprising rapidity, according to one of the suggestions of the accurate Ray. Its tongue is long and taper, and capable of great elongation; at the end of it there is in most of the species, a hard horny substance, curving slightly downwards, which penetrates into the crevices of trees, and extracts the insects and their eggs which are lodged there; the tail consists of ten stiff, sharp-pointed feathers, rough on the under sides, and bent inwards, by which it supports itself on the trunks of trees while in search of food; for this purpose its feet are short and thick, and its toes, which are placed two forward and two backward, are armed with strong hooked claws, by which it clings firmly, and creeps up and down in all directions.

The tip of the tongue in this genus is well known to be long and barbed; another peculiarity of structure connected with it, does not appear to have been noticed by naturalists;* in the back part of the palate is a longitudinal groove, which tapers to a point outwards, and is fringed with stiff hairs pointing towards the throat, with which it easily and speedily detaches its food from the barbs of the tongue.

* Communicated by J. E. Bowman, Esq., Wrexham.

THE BLACK WOODPECKER.

(*Picus martius*, Linn.—*Pic noir*, Temm.)

THIS scarce bird is the largest of the British Woodpeckers, being about seventeen inches in length; bill nearly two and a half, of a horn colour, and pale yellow on the sides; irides also pale yellow; the crown of the head is crimson, and the feathers elongated to the nape; the quills are brown, and all the rest of the plumage dull black; the legs are lead grey, having the fore part covered with feathers half their length.

The female differs from the male, the hinder part of her head only being red, and in some specimens the red is entirely wanting; the black parts of her plumage are also duller. They form their nest in the deep hollows of old trees, and lay two or three white eggs. The figure was taken from a stuffed specimen in the museum of the Hon. H. T. Liddell.

THE GREEN WOODPECKER.

WOODSPITE, HIGH-HOE, HEW-HOLE, OR PICK-A-TREE.*

(*Picus viridis*, Linn.—*Pic vert*, Temm.)

THIS is the second in size of the British kinds, being thirteen inches in length. The bill is two inches long, triangular, and of a dark horn colour: the tongue towards the tip is furnished with numerous fibres, projecting transversely, of the size of minute hairs; the outer circle of the eye is white, surrounding another of red; top of the head bright crimson, which extends down the

* Wallis, in his History of Northumberland, observes that it is called by the common people Pick-a-Tree, also Rain Fowl, from its being more loud and noisy before rain. The Romans called them *Pluviæ aves* for the same reason.

hinder part of the neck, ending in a point behind; the eye is surrounded by a black space; and from each corner of the bill runs a crimson streak pointing downwards; the back and wing coverts olive green; rump yellow; the quill feathers are dusky, barred on the outer web with black and white; the bastard wing spotted with white; sides of the head and under parts of the body white, slightly tinged with green; the tail is marked with bars like the wings; legs greenish. The female differs from the male in not having the red mark from the corner of the mouth; she makes her nest in the hollow of a tree, fifteen or twenty feet from the ground. Buffon observes that both male and female labour by turns in boring through the sound part of the wood, sometimes to a considerable depth, until they penetrate to that which is decayed and rotten, where she lays five or six eggs, of a greenish colour, marked with small black spots.

The Green Woodpecker is seen more frequently on the ground than the other kinds, particularly where there are ant-hills. It inserts its long tongue into the holes through which the ants issue, and draws out those insects in abundance. Sometimes, with its feet and bill, it makes a breach in the nest, and devours them at its ease, together with their eggs. The young ones climb up and down the trees before they are able to fly: they roost very early, and repose in their holes till day.

THE PIED WOODPECKER.

GREATER SPOTTED WOODPECKER, OR WITWALL.

(Picus Major, Linn.—*Pic épeiche*, Temm.)

LENGTH somewhat more than nine inches. The bill is of a dark horn colour, very strong at the base, and exceedingly sharp at the end; the upper and under sides formed by high pointed ridges, which run along the middle of each; the eyes are reddish, encircled with a large white spot, which extends to the back part of the head, on which is a spot of crimson; the forehead is buff; the top of the head black; on the back part of the neck are two white spots, separated by a line of black; the scapulars and tips of the wing coverts white; the rest of the plumage on the upper part of the body black; the tail is black, the outer feathers marked

with white spots; the throat, breast, and part of the belly yellowish white; the vent and lower part of the belly crimson; legs and feet lead grey. The female has not the red spot on the back of the head.

This bird is common in England. Buffon says that it strikes against the trees with brisker and harder blows than the Green Woodpecker. It creeps with great ease in all directions upon the branches of trees, and is with difficulty seen, as it instantly avoids the sight by creeping behind a branch, where it remains concealed.

THE BARRED WOODPECKER.

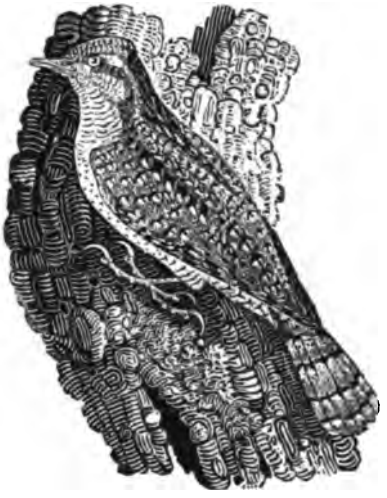
LESSER SPOTTED WOODPECKER, OR HICKWALL.

(*Picus minor*, Linn.—*Pic épeichette*, Temm.)

THIS is the smallest of the British Woodpeckers, being only five inches and a half in length; weight nearly one ounce. Its general plumage is black and white, like that of the Pied Woodpecker, but without the red at the vent and under the tail; it also differs from that bird in having its back and scapulars crossed with alternate stripes of black and white. It is prettily barred with white spots on the tips of the lesser and greater coverts, and the secondaries; the primaries have much the same appearance, from the indented white spots with which they are crossed. The crown of the head is crimson; cheeks, throat, and sides of the neck white, but divided by an irregular black stripe,

which falls down from the corners of the mouth, and pointing forward, crosses the fore part of the neck, the hinder part of which is also black from the nape to the shoulders; the under parts of the body are dirty white; the outside feathers of the tail white, with a few spots of black; the legs lead colour. Buffon says, that in winter it draws near houses and vineyards, that it shelters in holes of trees, and sometimes disputes possession with the Coal Titmouse, which it compels to give up its lodging.*

* Another British species, the Hairy Woodpecker (Picus Villosus), has been described by some authors, but we have never been able to obtain a specimen of it.



THE WRYNECK.

(*Yunx Torquilla*, Linn.—*Torcol ordinaire*, Temm.)

THE principal colours of this beautiful bird consist of different shades of brown, but so elegantly arranged as to form a picture of exquisite neatness; from the hinder part of the head an irregular line of brownish black runs to the middle of the back, the rest of the back is ash-grey, streaked and powdered with brown; the throat and under side of the neck are reddish brown, crossed with delicate bars of black; the breast, belly, and thighs light ash, marked with triangular spots; the larger quill feathers are marked on the outer webs with alternate spots of dark brown and rust colour, which, when the wing is closed, give it the appearance of chequered work; the rest of the wing and

the scapulars are nicely freckled, and shaded with brown spots of different sizes; the tail feathers are irregularly barred with black, the intervening spaces being finely freckled, and powdered with dark brown spots; its bill is rather long, sharp pointed, and pale lead grey; its eyes light brown; but what chiefly distinguishes this bird is the structure of its tongue, which is of considerable length, of a cylindrical form, and capable of being pushed forwards and drawn into its bill again;* it is furnished with a horny substance at the tip; its legs are short and slender; the toes long, two before and two behind; the claws sharp, much hooked, and formed for climbing branches of trees, on which it can run in all directions with great facility. It makes an artless nest of dry grass, in holes of trees, upon dusty rotten wood, the entrance to which is so small as scarcely to admit the hand, on which account its eggs are come at with much difficulty; they are perfectly white, and from eight to ten in number.

Though in many respects nearly related to the family of the Woodpeckers, being similar to that tribe in the formation of its bill and feet, yet the Wryneck never associates with them, and constitutes a genus of itself. It is found in various parts of Europe, and generally appears a few days before the Cuckoo. Its food consists chiefly of ants and other insects, of which it finds great abundance lodged in the bark and crevices of

* Dissection shows a curious muscular apparatus for this purpose, spirally arranged on the sides of the head, almost encircling each eye, and allowing very considerable extent and motion.

trees. The stomach of one which we opened was full of undigested parts of ants. It is said to frequent the places where ant-hills are, into which it darts its tongue, and draws out its prey. It holds itself very erect on the branch of the tree where it sits; its body is almost bent backward, whilst it writhes its head and neck by a slow and almost involuntary motion, not unlike the waving wreaths of a serpent. It is a very solitary bird, never being seen with any other society but that of its female, and this is only transitory, for as soon as the domestic union is dissolved, which is in the month of September, they retire and migrate separately.

THE NUTHATCH.*

NUTJOBBER. WOODCRACKER.

(*Sitta Europea*, Linn.—*Sittelle torchepot*, Temm.)

THE length is near six inches; bill strong, black above, beneath almost white; the eyes hazel; a black stroke passes over each eye, from the bill, extending down the side of the neck as far as the shoulder; all the upper part of the body is of a fine blue grey; the cheeks and chin white; breast and belly of a pale orange; sides marked with streaks of chesnut; quills dusky; the tail is short, the two middle feathers grey, the rest dusky, three of the outermost spotted with white; legs

* The order Anisoductyles of Temminck includes three British genera, viz., the Nuthatch, the Creeper, and the Hoopoe.

pale yellow; claws large, sharp, and much bent, the back claw very strong; when extended the foot measures one inch and three quarters.

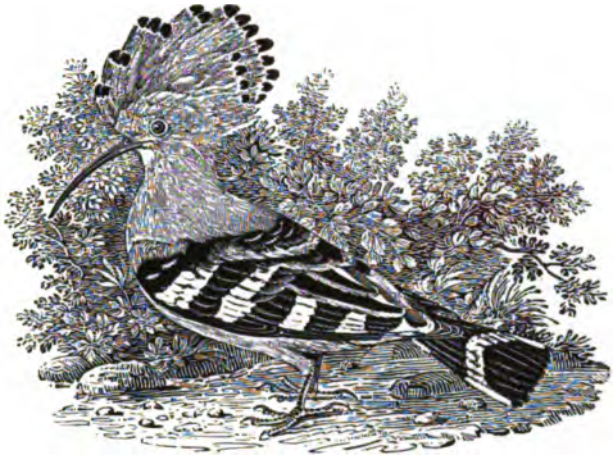
This, like the Woodpecker, frequents woods, and is a shy and solitary bird: the female lays her eggs, which are white, with a few pale brown spots, in holes of trees, frequently in those which have been deserted by the Woodpecker. The nest is fitted up with layers of the very thin flakes or laminæ of the bark of the Scotch fir. During the time of incubation, she is easily driven from her nest, and on being disturbed, hisses like a snake. The Nuthatch feeds on caterpillars, beetles, and various kinds of insects; it likewise eats nuts, and from its expertness in cracking them has obtained its name: having placed a nut fast in a chink, it takes its stand a little above, and striking it with all its force, perforates the shell and picks out the kernel; when disturbed at its work, it very readily removes the nut and flies away with it. In the same way it also breaks into the very hard shells of the stone pine. Like the Woodpecker, it moves up and down the trunks of trees with great facility, in search of food. It does not migrate, but in the winter approaches nearer inhabited places, and is sometimes seen in orchards and gardens.

THE CREEPER.

(*Certhia Familiaris*, Linn.—*Grimpereau familier*, Temm.)

LENGTH five inches and half; the body is about the size of that of the Wren. The bill is long, slender, and curved, the upper mandible brown, the lower whitish; eyes hazel; the head, neck, back, and wing coverts are dark brown, variegated with streaks of a lighter hue; the throat, breast, and belly silvery white; rump tawny; the quills are dusky, edged with tawny, and marked with bars of the same; tips white; above each eye a small dark line passes towards the neck, above which there is a line of white: the tail is long, and consists of twelve stiff brownish feathers, pointed and forked at the end; the legs are short, and brown; claws long, sharp, and much hooked, by which it is enabled to run with great facility on all sides of small branches of trees in quest of

insects and their eggs, which constitute its food. Although very common, it is not seen without difficulty, from the ease with which it escapes to the opposite side of the tree. It builds its nest early in spring, in a hole of a tree; lays from five to seven eggs, of a pure white, marked with red spots. The sexes differ very little in plumage, and the moult takes place once a year.

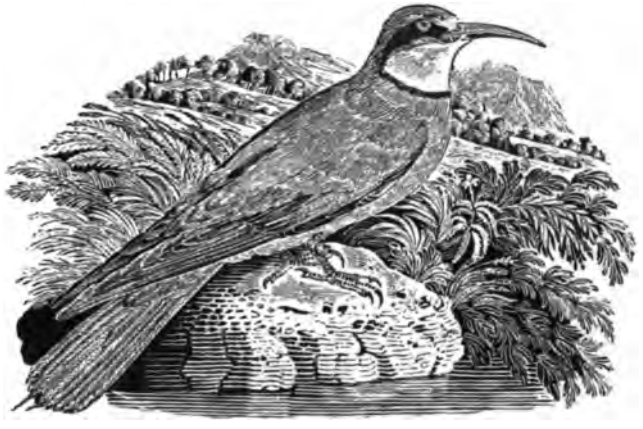


THE HOOPOE.

(*Upupa Epops*, Linn.—*Huppe puput*, Temm.)

LENGTH twelve inches; breadth nineteen. The bill is about two inches long, black, slender, and somewhat curved; eyes hazel; the tongue very short and triangular; the head is ornamented with a crest, consisting of a double row of feathers, of a pale orange yellow, tipped with black, the highest about two inches in length; the neck is pale reddish brown; breast and belly white, and in young birds marked with various dusky lines pointing downwards; the back, scapulars, and wings are crossed with broad bars of black and white; the lesser coverts of the wings light brown; rump white; the tail consists of ten feathers, each marked with white, and when closed, assumes the form of a crescent, the horns pointing downwards: the legs are short and black.

This is the only species of its kind found in this kingdom; and it is not very common with us, being seen only at uncertain periods. The foregoing representation was taken from a very fine one, shot near Bedlington, and sent for this work, by the Rev. Henry Cotes. In the stomach were found the claws and other indigestible parts of insects of the beetle tribe: it was alive some time after being wounded and taken, and walked about, erecting its tail and crest in a very pleasing manner. The sexes differ little in appearance; they moult once a year. The female is said to have two or three broods in the year; she makes no nest, but lays her eggs, generally about four or five in number, in the hollow of a tree, and sometimes in a hole of a wall, or even on the ground. Buffon says, that he has sometimes found a soft lining of moss, wool, or feathers, in the nests of these birds, and supposes that, in this case, they may have used the deserted nest of some other bird. Its food consists chiefly of insects, with the remains of which its nest is sometimes so filled as to become extremely offensive. It is a solitary bird, two of them being seldom seen together; in Egypt, where they are very common, they are seen only in small flocks. Its crest usually falls behind on its neck, except when it is surprised or irritated; it then stands erect; and its tail also, as well as its crest, is generally at the same time erected, and spread like a fan.



THE BEE EATER.*

(Merops Apiaster, Linn.—*Guêpier vulgaire*, Temm.)

THE bill is about one inch and three-eighths long, from the tip to where the ridge on the upper mandible meets the white feathers of the brow; it is of a somewhat triangular shape, and of a dark colour, thickish at the base, curved, and small at the tip; the nostrils are nearly covered with hairy-looking feathers; the eye-brows green; a stripe of black passes from the corners of the mouth over the eyes, tapers off towards the hinder part of the neck, and terminates behind the auriculars; the crown of the head, hinder part of the neck, the back, and upper plumage are mostly in deeper and lighter shades of a brilliant reddish chesnut,

* The order Alcyones of Temminck includes two British genera, viz., the Bee-eater, and the King-fisher.

but the terminations of the shoulder feathers, which fall over the scapulars, partake of pale or whitish yellow; the chin and upper part of the neck are yellow, boundered by a black line; below this, towards the shoulders, and all the under parts are of a glossy verditer green; the lesser coverts are green; the scapulars, some of the secondaries, the primaries, and the tail are also of that colour, but shaded off with yellow brown; the tail is long, the two middle feathers longest, and pointed or forked at the tip; the legs and feet, which are similar in conformation to those of the King-fisher, are black; and, like that bird, it makes its nest in the banks of rivers, at the end of a long hole; the eggs are white, and nearly oval; from these circumstances, the general contour of its figure, and its brilliant plumage, it bears some affinity to the genus Alcedo. This beautiful and rare visitant has sometimes been met with in Devonshire.

Through the medium of the late Lieut. J. A. Howard, of the seventy-third regiment, we have obtained from Mr. Leadbeater the specimen from which the foregoing figure was taken, and beg to acknowledge our obligation for the facilities thus afforded to the work.

THE KING-FISHER.

(*Alcedo Ispida*, Linn.—*Martin-pêcheur Alcyon*, Temm.)

THIS splendid little bird is of rather a clumsy shape, the head being large in proportion to the size of the body, and the legs and feet very small. The length is only seven inches, breadth eleven; weight about two ounces and a quarter. The bill, measured from the corners of the mouth, is two inches long, vertically compressed on the sides, strong, straight, and tapering to a sharp point; the upper mandible is black, fading into red towards the base; the under one as well as the inside of the mouth, reddish orange; irides hazel, inclining to red. A broad stripe passes from the bill over the eye to the hinder part of the neck, of a bright orange, but margined on the side of the mouth, and crossed below the eye, by a narrow

black stroke, and terminated behind the auriculars with a slanting wedge-shaped white spot. The throat is white; the head and the wing coverts are a deep shining green, spotted with bright light blue; the scapulars and exterior webs of the quills are of the same colour, but without spots. The middle of the back, the rump, and coverts of the tail are of a most resplendent azure: the tail, which consists of twelve short feathers, is deep rich blue, and the whole under part of the body, bright orange. The legs and toes are red, and are peculiar in their shape and conformation, the three forward toes being unconnected from the claws to the first joints, from whence they appear as if grown into each other; and the inner and hinder ones are placed in a line on the inside of the foot, whereby the heel is widened, and seems pressed out.

Its habits and manner of living are wholly confined to the fresh waters, on the margins of which it will sit for hours together on a projecting twig, or stone; at one while fluttering its wings, and exposing its brilliant plumage to the sun; at another, hovering in the air like the Kestrel, it waits the moment when it may seize its prey, on which it darts almost unerringly: often it remains for several seconds under water, before it has gained the object of its pursuit, then brings up the little fish, which it carries to the land, beats to death, and swallows.

The female commonly makes her nest by the sides of rivers or brooks, in a hole made by the mole, or the water-rat; this she enlarges or contracts to suit her purpose; and it is conjectured,

from the difficulty of finding the nest, that frequently the hole which leads to it is under water. The eggs are clear white.

To notice the many strange and contradictory accounts of this bird, as well as of its nest, transmitted to us by the ancients,* and to enumerate the properties ascribed to it by the superstitious in all ages, would occupy too large a portion of this work: but the following modern instance seems worthy of notice:—

Dr. Heysham, of Carlisle, in his Catalogue of Cumberland Animals, says, "On the 7th of May, a boy from Upperby brought me a King-fisher alive, which he had taken when sitting on her eggs the night before: from him I received the following information:—Having often, this spring, observed these birds frequent a bank upon the river Peteril, he watched them carefully, and saw them go into a small hole in the bank. The hole was too small to admit his hand, but as it was made in the soft mould, he easily enlarged it. It was upwards of half a yard long; at the end of it the eggs, which were six in number, were placed

* Their nests are wonderful—of the figure of a ball rather elevated, with a very narrow mouth; they look like a large sponge; they cannot be cut with a knife, but may be broken with a smart stroke: they have the appearance of petrified sea-froth. It is not discovered of what they are formed; some think of Prickly-back bones, since they live upon fish.—*Pliny*.

Aristotle compares the nest to a gourd, and its substance and texture to those sea-balls or lumps of interwoven filaments which are cut with difficulty: but, when dried, become friable.

Ælian and *Plutarch* describe it as being made to float on the placid face of the ocean.

upon the bare mould, there being not the smallest appearance of a nest."

King-fishers are not so numerous as might be expected from the number of eggs found in their nests, owing probably to the young being destroyed by the floods, which must often rise above the level of the holes where they are bred.

Except in the breeding season, this bird is usually seen alone, flying near the surface of the water with the rapidity of an arrow, like a little brilliant meteor, by which appearance the eye is enabled to follow its long-continued course. Considering the shortness of its wings, the velocity with which it flies is surprising.

Ornithologists inform us that King-fishers are found in almost every part of the globe; but it does not appear that more than this one species has ever been seen in Europe.

Of the Swallow.*

OF all the families of birds which resort to this island for incubation, food, or shelter, there is none which has occasioned so many conjectures respecting its appearance and departure as the Swallow tribe; of this we have already treated in the introductory part of the work, to which we refer the reader. Their habits and modes of living are perhaps more conspicuous than those of any other. Their arrival has ever been associated in our minds with the idea of spring; and till the time of their departure they seem continually before our eyes. The Swallow lives almost constantly in the air, and performs many of its functions in that element; and whether it pursues the devious windings of the insects on which it feeds, or endeavours to escape the birds of prey by the quickness of its motion, it describes lines so mutable, so interwoven, and so confused, that they hardly can be pictured by words. "The Swallow tribe is of all others the most inoffensive, entertaining, and social; all, except one species, attach themselves to our houses, amuse us with their migrations, songs, and marvellous agility, and clear the air of gnats and other troublesome insects, which would otherwise much annoy and incommode us. Whoever contemplates the myriads of insects that sport in the sunbeams of a summer evening in this

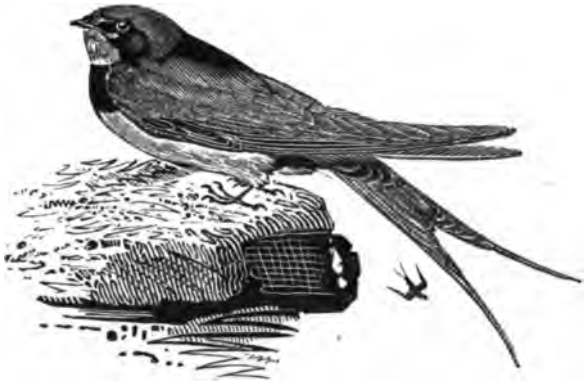
* The order Chélidones of Temminck consists of three British genera, viz., Hirundo, Cypselus, Caprimulgus.

country, will soon be convinced to what degree our atmosphere would be choked with them, were it not for the friendly interposition of the Swallow tribe."*

Swallows are found in every country, but seldom remain the whole year in the same climate; the times of their appearance in and departure from this country are well known: on their arrival all nature assumes a more cheerful aspect.

The bill of this genus is short, very broad at the base, and a little bent; the head is flat, and the neck scarcely visible; the tongue is short, broad, and cloven; tail mostly forked; wings long; legs short. The plumage of both sexes are nearly alike.

* White's Selborne.



THE SWALLOW.

CHIMNEY OR HOUSE SWALLOW.

(*Hirundo Rustica*, Linn.—*Hirondelle de cheminée*, Temm.)

LENGTH somewhat more than six inches. Bill black; eyes hazel; forehead and chin red, inclining to chesnut; the whole upper part of the body black, reflected with a purplish blue on the top of the head and scapulars; the quills of the wings, according to their different positions, are sometimes bluish black, and sometimes greenish brown, whilst those of the tail are black, with green reflections; the fore part of the breast is black, the rest of the breast and belly white; the inside and corners of the mouth yellow; tail very long and much forked, each feather, except the middle ones, is marked with an oval white spot on the inner web: legs very short, delicately fine, and blackish. We have seen a young Swallow, which was shot on the 26th of September; its length was scarcely five inches; its tail was short, and not forked; the

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feathers were black, wanting the white spots; its breast was tinged with red.

The Swallow makes its appearance soon after the vernal equinox, and leaves us again about the end of September; it builds generally in chimnies, in the inside, within a few feet of the top, or under the eaves of houses; the nest is curiously constructed, of a cylindrical shape, plastered with mud, mixed with straw and hair, and lined with feathers: it is attached to the sides or corners of the chimney, and is sometimes a foot in height, open at the top. The female lays five or six eggs, white, speckled with red. Swallows return to the same haunts; they build annually a new nest, and often fix it, if the place admit, above that occupied the preceding year. We are favoured by Sir John Trevelyan, Bart., with the following curious fact:—At Camerton Hall, near Bath, a pair of Swallows built their nest on the upper part of the frame of an old picture over the chimney, coming through a broken pane in the window of the room. They came three years successively, and in all probability would have continued to do so if the room had not been put into repair, which prevented their access to it. Both this bird and the Martin have generally two broods in the year; the first in June, the other in August, or perhaps later. Swallows frequently roost at night, after they begin to congregate, by the sides of rivers and pools, from which circumstance it has been erroneously supposed that they retire into the water.

Not many attempts have been made to preserve Swallows alive during the winter, and of these,

few have succeeded. The following experiments, by Mr. James Pearson, of London, communicated to us by Sir John Trevelyan, Bart., are highly interesting, and throw great light upon the natural history of the Swallow; we shall give them nearly in Mr. Pearson's own words.

Five or six of these birds were taken about the latter end of August, 1784, in a bat fowling-net, at night; they were put separately into small cages, and fed with Nightingale's food: in about a week or ten days they took food of themselves; they were then put altogether into a deep cage, four feet long, with gravel at the bottom; a broad shallow pan with water was placed in it, in which they sometimes washed themselves, and seemed much strengthened by it. One day Mr. Pearson observed, that they went into the water with unusual eagerness, hurrying in and out again repeatedly, with such swiftness as if they had been suddenly seized with a frenzy. Being anxious to see the result, he left them to themselves about half an hour, and on going to the cage again, found them all huddled together in a corner, apparently dead; the cage was then placed at a proper distance from the fire, when only two of them recovered, and were as healthy as before—the rest died. The two remaining ones were allowed to wash themselves occasionally for a short time only; but their feet soon after became swelled and inflamed, which Mr. P. attributed to their perching, and they died about Christmas; thus the first year's experiment was in some measure lost. Not discouraged by the failure of this, Mr. P. determined to make a second trial the succeeding year, from a

strong desire of being convinced of the truth respecting their going into a state of torpidity. Accordingly, the next season, having taken some more birds, he put them into the cage, and in every respect pursued the same methods as with the last; but to guard their feet from the bad effects of the damp and cold, he covered the perches with flannel, and had the pleasure to observe, that the birds throve extremely well; they sung their song through the winter, and soon after Christmas began to moult, which they got through without any difficulty, and lived three or four years, regularly moulting every year at the usual time. On the renewal of their feathers, it appeared, that their tails were forked exactly the same as in those birds which return hither in the spring, and in every respect their appearance was the same. These birds, says Mr. Pearson, were exhibited to the Society for Promoting Natural History, on the 14th day of February, 1786, at the time they were in a deep moult, during a severe frost, when the snow was on the ground. Minutes of this circumstance were entered in the books of the society. These birds died at last from neglect, during a long illness which Mr. Pearson had: they died in the summer. Mr. P. concludes his very interesting account in these words:—"January 20, 1797, I have now in my house, No. 21, Great Newport-street, Long-Acre, four Swallows in moult, in as perfect health as any birds ever appeared to be when moulting."

These experiments have since been amply confirmed by the observations of M. Natterer, of Vienna, as stated by M. Temminck in his Manuel

d'Ornithologie; and the result clearly proves, what is in fact now admitted on all hands, that Swallows do not in any material instance differ from other birds in their nature and propensities; but that they leave us when this country can no longer furnish them with a supply of their proper and natural food: but more especially when the great object of their coming, that of propagating their kind, has been fulfilled.

Swallows soon become familiar* after they have

* The following remarkable proof of this is extracted from a letter to the author, from the Rev. Walter Trevelyan, dated Long Witton, Northumberland, Sept. 10, 1800:—

"About nine weeks ago, a Swallow fell down one of our chimnies, nearly fledged, and was able to fly in two or three days. The children desired they might try to rear him (to which I agreed, fearing the old ones would desert him), and as he was not the least shy, they succeeded without any difficulty, for he opened his mouth for flies as fast as they could supply them, and was regularly fed to a whistle. In a few days (perhaps a week) they used to take him into the fields with them, and as each child found a fly, and whistled, the little bird flew for his prey, from one to another; at other times he would fly round above them in the air, but always descended at the first call, in spite of the constant endeavours of the wild Swallows to seduce him away; for which purpose several of them at once would fly about him in all directions, striving to drive him away when they saw him about to settle on one of the children's hands, extended with the food. He would very often alight on the children, uncalled, when they were walking several fields distant from home.

"Our little inmate was never made a prisoner, by being put into a cage, but always ranged about the room at large, wherever the children were, and they never went out of doors without taking him with them. Sometimes he would sit on their hands or heads, and catch flies for himself, which he soon did with great dexterity. At length, finding it take up too much of their time to supply him with food enough to satisfy his appetite (for I have no doubt he ate from seven hundred to a thousand flies a-day), they used to turn him out of the house, shutting the window to prevent his return, for two or

been caught; that from which the foregoing figure was taken had been slightly wounded in the wing, so as to prevent its flying away. It sat on the bench while the cut was engraved, and from its having been fed by the hand with flies, when sitting for its portrait, watched every motion, and at every look of the eye, when pointedly directed towards it, ran close up to the graver, in expectation of a fresh supply of food.

three hours together, in hopes he would learn to cater for himself, which he soon did, but still was no less tame, always answering their call, and coming in at the window to them (of his own accord) frequently, every day, and always roosting in their room, which he has regularly done from the first till within a week or ten days past. He constantly roosted on one of the children's heads till their bed-time; nor was he disturbed by the child moving about, or even walking, but would remain perfectly quiet, with his head under his wing, till he was put away for the night in some warm corner: for he liked much warmth.

"It is now four days since he came in to roost in the house, and though he did not then show any symptoms of shyness, yet he is evidently becoming less tame, as the whistle will not now bring him to the hand, nor does he visit us as formerly, but he always acknowledges it when within hearing, by a chirp, and by flying near. Nothing could exceed his tameness for about six weeks, and I have no doubt it would have continued the same, had we not left him to himself as much as we could, fearing he would be so perfectly domesticated that he would be left behind at the time of migration, and of course be starved in the winter, from cold or hunger.

"One thing I have observed, which perhaps is not much known, is, that these birds *cast* like the Hawk tribe."

THE MARTIN.

MARTLET, MARTINET, OR WINDOW SWALLOW.

(Hirundo Urbica, Linn.—*Hirondelle de fenêtre*, Temm.)

LENGTH about five inches and a half. Bill black; eyes dark hazel; inside of the mouth yellow; the top of the head, the wings, and tail dusky brown; back black, glossed with blue; the rump and all the under parts from the chin to the vent, are pure white; ends of the secondary quill feathers finely edged with white; the legs are covered with white downy feathers down to the claws, which are white also, very sharp, and much hooked; the middle toe is much longer than the others, and is connected with the inner one as far as the first joint.

This bird visits us in great numbers; it has generally two broods, sometimes three, in the year; it builds in craggy precipices near the sea, or by the sides of lakes, most frequently,

however, under the eaves of houses,* or close by the window. The nest is made of mud and straw on the outside, and lined with feathers; the first hatch consists of five eggs, which are white, inclining to dusky at the thicker end; the second of three or four; and the third of only two or three. While the young birds are confined to the nest, the parents feed them, adhering by the claws to the outside; but as soon as they are able to fly, they receive their nourishment on the wing, by a motion quick and almost imperceptible to those who are not accustomed to observe it.

The Martin arrives somewhat later than the Swallow, and does not leave us so soon; they have been observed in the neighbourhood of London so late as the middle of October. White, in his Natural History of Selborne, has made some judicious remarks on these birds, with a view to illustrate the time and manner of their migrations, to which we beg leave to refer.

* The following passage of our "sweet Shakespeare," descriptive of its haunts, has always been admired as conveying a perfect idea of amenity of situation:—

> "The guest of summer,
> The temple-haunting martlet, does approve
> By his lov'd mansionry, that the heaven's breath
> Smells wooingly here: no jutty, frieze, buttress,
> Nor coigne of vantage, but this bird hath made
> His pendent bed, and procreant cradle: Where they
> Most breed and haunt, I have observed, the air
> Is delicate."

THE SAND MARTIN.

BANK MARTIN, OR SAND SWALLOW.

(*Hirundo Riparia*, Linn.—*Hirondelle de rivage*, Temm.)

LENGTH about four inches and three-quarters. Bill dark horn colour; head, neck, breast, and back mouse colour; over each eye is a light streak; throat and fore part of the neck white, as are the belly and vent; wings and tail brown; feet smooth and dark brown.

This is the smallest, as well as the least numerous of our Swallows. It frequents the steep sandy banks of rivers, in the sides of which it makes deep holes, and places the nest at the end; it is carelessly constructed of straw, dry grass, and feathers; the female lays five or six white eggs, almost transparent, and is said to have only one brood in the year.

THE SWIFT.

BLACK MARTIN, OR SCREAMER.

(*Cypselus Murarius*, Temm.—*Martinet de muraille*, Temm.)

LENGTH nearly eight inches. Bill black; eyes hazel; general colour a sooty black, with greenish reflections; throat white; wings long, measuring from tip to tip about eighteen inches; tail much forked; legs dark brown and very short; toes stand two and two on each side of the foot, and consist of two phalanges or joints only, a conformation peculiar to this bird. There is hardly any difference between the male and the female.

The Swift arrives later, and departs sooner than any of the tribe; it is larger, stronger, and its flight is more rapid than that of any other of its kindred. It has but one brood in the year, so that the young ones have time to gain strength enough to accompany the parent birds in their distant excursions. They have been noticed at the Cape of Good Hope, and probably visit the more remote regions of Asia. Swifts are almost continually on the wing; they fly higher, and wheel

with bolder wing than the Swallows, with which they never intermingle. The life of the Swift seems to be divided into two extremes; the one of the most violent exertion, the other of perfect inaction; they must either shoot through the air, or remain close in their holes. They are seldom seen to alight; but if by any accident they should fall upon a piece of even ground, it is with difficulty they can recover themselves, owing to the shortness of their feet, and the great length of their wings. They are said to avoid heat, and for this reason pass the middle of the day in their holes; in the morning and evening they go out in quest of provision; they then are seen in flocks, describing an endless series of circles upon circles, sometimes in close ranks pursuing the direction of a street, and sometimes whirling round a large edifice, all screaming together; they often glide along without stirring their wings, and on a sudden they move them with frequent and quickly repeated strokes. Swifts build generally in lofty steeples and high towers: sometimes under the arches of bridges, which, though their elevation is not great, are difficult of access: the nest is composed of a variety of materials, such as dry grass, moss, hemp, bits of cord, threads of silk and linen, small shreds of gauze, of muslin, feathers, and other light substances which they chance to find in the sweepings of towns. It is difficult to conceive how these birds, which are never seen to alight, gather such materials; some have supposed that they catch them in the air as they are carried up by the wind; others, that they raise them by glancing along the surface of the ground:

while others assert, with more probability, that they often rob the Sparrow, and occupy the same hole, after driving out the possessor. The female lays five white eggs, rather pointed and spindle-shaped; the young ones are hatched about the latter end of May; they begin to fly about the middle of June, and shortly after abandon the nest, after which the parents seem no more to regard them.

Swifts begin to assemble previously to their departure early in July: their numbers daily increase, and large bodies appear together: they soar higher, with shriller cries, and fly differently from their usual mode. These meetings continue till towards the middle of August, after which they disappear.

THE NIGHT-JAR.

GOAT-SUCKER, DOR-HAWK, OR FERN OWL.

(Caprimulgus Europæus, Linn.—*Engoulevent ordinaire*, Temm.)

THE length is about ten inches and a half. Bill small, flat, and somewhat hooked at the tip, and furnished on each side of the upper mandible with several strong bristles, whereby it secures its prey; the lower jaw is edged with a white stripe, which extends backward towards the head; the eyes are large, full, and black; the plumage beautifully freckled and powdered with browns of various hues, mixed with rusty and white, but so diversified as to baffle all description. The male is distinguished by an oval spot of white on the inner webs of the first three quill feathers, and at the ends of the two outermost feathers of the tail; the legs are short, rough, and scaly, and feathered below the knee; the toes are connected by a membrane as far as the first joint; the middle one is

considerably larger than the rest, and the claw is serrated on one side.

To avoid, as much as possible, perpetuating error, we have dropped the name Goat-sucker, which has no foundation but in ignorance and superstition, and have adopted one, which, though not universally known, bears some analogy to the nature and qualities of the bird, both in respect to the time of its appearance, which is always the dusk of the evening, as well as to the jarring noise which it utters whilst at rest perched on a tree, and by which it is peculiarly distinguished.

The Night-jar is found in every part of the old continent, from Siberia to Greece, Africa, and India; it arrives in this country about the end of May, being one of our latest birds of passage, and departs in the end of August or the beginning of September; it is nowhere numerous, and never appears in flocks. Like the Owl, it is seldom seen in the day-time, unless disturbed, or in dark and gloomy weather, when its eyes are not dazzled by the bright rays of the sun. It feeds on insects, which it catches on the wing; it is a great destroyer of the cock-chafer or dor-beetle, from which circumstance, in some places, it is called the Dor-hawk. Six of these insects were found in the stomach of our specimen, besides four or five large-bodied moths. White supposes that the feet are useful in taking its prey, as he observed it frequently, while on the wing, put forth a leg, with which it seemed to convey something to its mouth. These birds frequent moors and wild heathy tracts abounding with ferns; they make no nest, but the female deposits her eggs on the ground; she lays

only two or three, which are dull white, spotted with brown. They are seen most frequently towards autumn: their motions are irregular and rapid, sometimes wheeling in quick succession round a tree or other object, diving at intervals as if to catch their prey, and then rising again as suddenly. The Night-jar usually perches on a bare branch, its head lower than its tail, and in this attitude utters its jarring note; it is likewise distinguished by a sort of buzzing while on the wing, which has been compared to the noise caused by the quick rotation of a spinning-wheel, from which, in some places, it is called the Wheel-bird: sometimes it utters a small plaintive note or squeak, four or five times in succession: the latter is probably its call to invite the female. It does not perch like other birds, sitting across the branch, but lengthwise, and its hinder toe is capable of being turned forward as well as backward. In hot weather it is very fond of basking in the sun on the ground, and will suffer itself to be very nearly approached; but it is difficult to be seen on account of the resemblance of its plumage to the colour of the place on which it chuses to sit. It is a solitary bird, two being seldom found together, but sitting at a little distance from each other.

Of the Dove.*

THE various families which constitute this order are distinguished by shades and gradations so minute, as to exceed all description. By much the larger portion are the willing attendants on man, and depend on his bounty, seldom leaving the dwellings provided for them, and only roaming abroad to seek amusement, or to procure subsistence; but when we consider the lightness of their bodies, the great strength of their wings, and the amazing rapidity of their flight, it is a matter of wonder that they should submit even to a partial domestication, or occupy those tenements fitted up for the purpose of breeding and rearing their young. It must be observed, however, that in these they live rather as voluntary captives, or transient guests, than as permanent or settled inhabitants, enjoying a considerable portion of that liberty they so much delight in: on the slightest molestation they will sometimes abandon their mansion with all its conveniences, and seek a solitary lodgement in the holes of old walls or unfrequented towers; and some ornithologists assert, that they will even take refuge in the woods, where, impelled by instinct, they resume their native manners.

The varieties and intermixtures of this tribe are innumerable, and partake of all those diversified hues which are the result of domestication. The

* This order is composed of Columba alone.

habits of Pigeons are well known, no birds being more universally diffused. Having a powerful wing, they are enabled to perform very distant journies; accordingly, wild and tame Pigeons occur in every climate, and although they thrive best in warm countries, yet with care they succeed also in very northern latitudes. Their manners are gentle and lively; they are fond of society, and have always been held emblematic of peace and innocence; they are faithful to their mates, whom they solicit with the softest cooings, the tenderest caresses, and the most graceful movements. The exterior form of the Pigeon is elegant: the bill is weak, straight, and slender, and has a soft protuberance at the base, in which the nostrils are placed, the point is somewhat curved: the legs are short and red, and the toes divided to the origin. They moult once, and the sexes do not differ in plumage.

THE RING DOVE.

CUSHAT, OR QUEEST.

(Columba Palumbus, Linn.—*Colombe ramier*, Temm.)

Is the largest of all the Pigeon tribe, and measures about seventeen inches in length. The bill is pale red: the nostrils are covered with a mealy red fleshy membrane; eyes pale yellow; the upper parts of the body bluish ash, deepest on the upper part of the back, the lower part of which, the rump, and fore part of the neck and the head, are pale ash-grey; the lower part of the neck and breast are vinous ash; the belly, thighs, and vent dull white; on the hinder part of the neck is a semi-circular line of white (whence the name) above and beneath which the feathers are glossy, and of a changeful hue in different lights; the greater quills are dusky, and all of them, except-

ing the outermost, edged with white; from the point of the wing a white line extends downwards, passing above the bastard wing; the tail is ash-grey, tipped with black; legs red, and partly covered with feathers; claws black.

The Ring Dove is very generally diffused throughout Europe: it is said to be migratory, but that it does not leave us entirely is certain, for they assemble in flocks during the winter on the banks of the Tyne, where many of them constantly breed in the spring. They build on trees. The nest is composed of small twigs, so loosely put together, that the eggs may be seen through it from below. The female lays two white eggs, and is generally supposed to have two broods in the year. They feed on acorns, wild fruits, herbs, and grain of all kinds: they likewise are very fond of the roots of the pernicious weeds so well known to farmers under the denomination of *whickens*, of which the *Triticum repens*, or couch-grass, is the principal: their flesh is very delicious when they have fed upon these, but it soon acquires an unpleasant flavour when they have lived upon turnips, which, from necessity, they are driven to eat in severe winters. The Ring Dove has a louder and more plaintive sort of cooing than the common Pigeon, but is not heard except in pairing time, or during fine weather.

ROCK DOVE.

(Columba Livia, Briss.—*Colombe biset*, Temm.)

LENGTH fourteen inches. Bill pale brown; the head, neck, and upper part of the back deep bluish grey, reflected on the sides of the neck with glossy green and gold; breast pale reddish purple; the lower part of the back and the rump light grey or ash, as are also the belly, thighs, and under tail coverts; the primary quill feathers are dusky, edged with white, the others grey, marked with two black spots on the exterior webs, forming two bars across each wing; tail ash-grey, tipped with black; lower half of the two outermost feathers white: legs and feet red; claws black.

This species is probably the origin of most of those beautiful varieties which in a state of domestication are dependent upon man. In this

state their increase is prodigious; and, though they never lay more than two eggs at a time, yet, allowing them to breed nine times in the year, the produce of a single pair, at the expiration of four years, may amount to the enormous number of 14,762.* The male and female perform the office of incubation by turns, and feed their young by casting up the provisions out of their stomachs into the mouths of the young ones.

To describe the varieties of the domestic Pigeon would exceed the limits of our work; we shall therefore barely mention the names of the most noted among them, such as Tumblers, Carriers, Jacobins, Croppers, Powters, Runts, Turbits, Shakers, Smiters, Owls, Nuns, &c. Of these the Carrier Pigeon is the most deserving of notice, having been made use of, from very early times, to convey intelligence on the most important occasions, and it never fails to execute its commission with unequalled expedition and certainty.† The bird used on these occasions is taken from the place to which the advices are to be communicated, and the letter being tied under its wing, it is let loose, and in spite of surrounding armies and every obstacle that would have effectually prevented any other means of conveyance, guided by instinct alone, it returns directly home, where the intelligence is so much wanted. There are instances on record of their having been employed during a siege, to convey an account of its progress, of

* Stillingfleet's Tracts.

† In Asia, Pigeons are still used to convey intelligence.

the situation of the besieged, and of the probable means of relief: sometimes they have been the peaceful bearers of glad tidings to the anxious lover, and to the merchant, of the welcome news of the safe arrival of his vessel at the desired port.

THE TURTLE DOVE.

(*Columba Turtur*, Linn.—*Colombe Tourterelle*, Temm.)

LENGTH somewhat more than twelve inches. Bill brown, eyes yellow, encompassed with a crimson circle; top of the head ash-grey, mixed with olive; each side of the neck is marked with a spot of black feathers, tipped with white; the back is ash-grey, each feather margined with reddish brown; wing coverts and scapulars reddish brown, spotted with black; quill feathers dusky, edges pale; the fore part of the neck and the breast are light purplish red; the belly, thighs, and vent white; the two middle feathers of the tail brown, the others dusky, tipped with white, the two outermost also edged with the same: legs red. One of these birds, which was sent us by the Rev. Henry

Ridley, was shot out of a flock at Prestwick-Car, in Northumberland, in the month of September, 1794; it agreed in every respect with the Common Turtle, excepting the mark on each side of the neck, which was wholly wanting: we suppose it to have been a young bird.

The note of the Turtle Dove is singularly tender and plaintive: in addressing his mate, the male makes use of a variety of winning attitudes, cooing at the same time in the most gentle and soothing accents; on which account this bird has been represented in all ages, as the most perfect emblem of connubial attachment and constancy. It arrives late in the spring, and departs about the latter end of August: frequenting the thickest and most sheltered parts of the woods, where it builds on the highest trees; the female lays two eggs, and has only one brood in this country, but in warmer climates it is supposed to breed several times in the year. Turtles are pretty common in Kent, where they are sometimes seen in flocks of twenty or more, frequenting the pea fields, and doing much damage. Their stay with us seldom exceeds four or five months, during which time they pair, breed, and rear their young, which are strong enough to join them in their retreat.

Of the Gallinaceous kind.*

WE are now to speak of a very numerous and useful order of birds, which, by the bounty of Providence, is diffused throughout every country of the world, affording a plentiful and grateful supply of the most delicate, wholesome, and nutritious food. A large portion of these seem to have left their native woods to crowd around the dwellings of man, where, subservient to his purpose, they subsist upon the pickings of the farmyard, the stable, or the dunghill; a cheerful, active race, which enliven and adorn the rural scene, and require no other care than the fostering hand of the housewife to protect them. Some kinds, such as the Pheasant, the Partridge, and the like, are found only in cultivated places, at no great distance from the habitations of men; and, although they have not submitted to his dominion, they are nevertheless subject to his controlling power, and are the objects of his keenest pursuit; whilst others, taking a wider range, find food and shelter in the deepest recesses of the forests, sometimes subsisting upon wild and heathy mountains, or among rocks and precipices the most difficult of access.

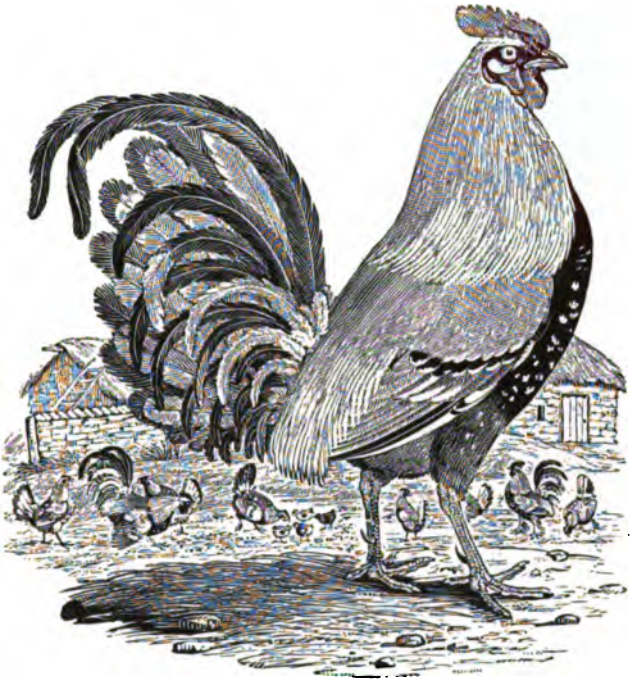
The characters of the gallinaceous tribes are well known: most of the species are distinguished above all others for the whiteness of their flesh;

* In this order (Gallinæ) are included three British genera, viz., Phasianus, Tetrao, Perdix.

their bodies are large and bulky, and their heads comparatively small: the bill in all of them is short, strong, and somewhat curved; their wings are short and concave, and scarcely able to support their bodies, on which account they seldom make long excursions: their legs are strong, and furnished with a spur or a knob behind.

Birds of this kind are extremely prolific, and lay a great number of eggs; the young follow the mother as soon as hatched, and immediately pick up the food which she is most assiduous in shewing them: she generally makes her nest on the ground, or in places easy of access to her young brood.

Our gallant Chanticleer holds a distinguished rank in the list of our domestic tribes; on which account we shall place him at the head.



THE COCK.

(Gallus domesticus, Briss.—*Le Coq*, Buff.)

THE Cock, in his present state of domestication, differs so widely from his supposed wild original, as to render it a difficult matter to trace him back to his primitive stock; however it is generally agreed that he is to be found in a state of nature in the forests of India, and in most of the islands of the Indian seas. The varieties of this species are endless, every country and almost every district of each country, producing a different kind. From

Asia, where they are supposed to have originated, they have been diffused over every part of the inhabited world. America was the last to receive them. It has been said that they were first introduced into Brazil by the Portuguese; they are now as common in all the inhabited parts of that vast continent as with us. Of those which have been selected for domestic purposes in this country, the principal are—

1. The Crested Cock, of which there are several varieties, such as the white-crested black ones: the black-crested white ones; the gold and silver ones, &c.

2. The Hamburgh Cock, named also Velvet Breeches, because its thighs and belly are of a soft black.* This is a very large kind, and much used for the table.

3. The Bantam, or Dwarf Cock, a diminutive but very spirited breed: its legs are furnished with long feathers, which reach to the ground behind; it is very courageous, and will fight with one much stronger than itself.

4. The Frizzled Cock. The feathers in this are so curled up that they seem to be reversed, and to stand in opposite directions. They are originally from the southern parts of Asia, and when young are extremely sensible of cold. They have a disordered and unpleasant appearance, but are in much esteem for the table.

5. The Silk Fowls, whose skin and bones are black.

6. A kind which has no rump, and consequently no tail feathers.

* Buffon.

We shall finish our list with the English Game-cock, which stands unrivalled by those of any other country for its invincible courage, and on that account is made use of as the instrument of the cruet diversion of cock-fighting. To trace this custom to its origin we must look back into ancient times. The Athenians allotted one day in the year to cock-fighting; the Romans are said to have learned it from them; and by that warlike people it was first introduced into this island. Henry VIII. was so attached to the sport, that in order to enjoy it, he caused a commodious house to be erected, which, though it is now applied to a very different purpose, still retains the name of the Cock-pit. The Chinese, and many of the nations of India, are so extravagantly fond of this unmanly and disgraceful amusement, that, during the paroxysms of their phrenzy, they will sometimes risk not only the whole of their property, but their wives and children, on the issue of a battle.

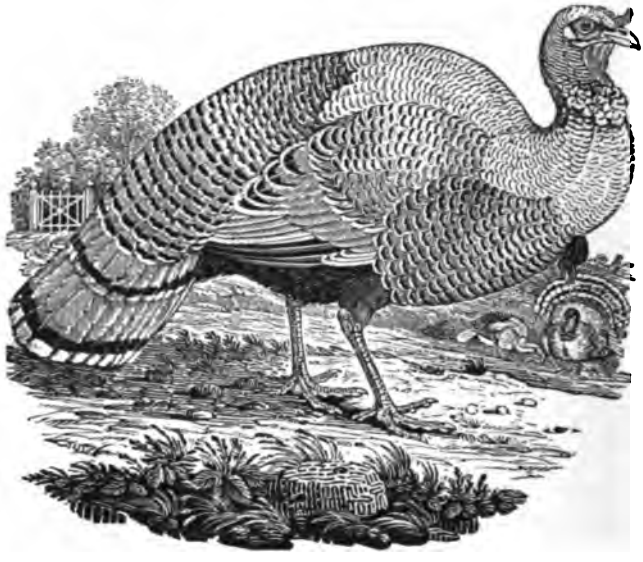
The appearance of the Game-cock, when in his full plumage, and not mutilated for the purpose of fighting, is strikingly beautiful and animated: his head, which is small, is adorned with a beautiful red comb, and his chin and throat with wattles; his eyes sparkle with fire, and his whole demeanour bespeaks boldness and freedom. The feathers on his neck are long, slender, and pointed, and fall gracefully down upon his body, which is thick, muscular, and compact: his tail is long, and the flexile feathers which fall over it form a beautiful arch behind, which gives a grace to all his motions; his legs are strong, and armed with sharp spurs, with which he defends himself, and attacks his adversary;

he lays hold with his beak, and strikes with the feet and wings. When surrounded by his females, his whole aspect is full of animation; he allows of no competitor, but, on the approach of a rival, rushes forward to instant combat, and either drives him from the field, or perishes in the attempt. The Cock is very attentive to his females, hardly ever losing sight of them; he leads, defends, and cherishes them, collects them together when they straggle, and seems to eat unwillingly till he sees them feeding around him: when he loses them he utters his griefs, and from the different inflections of his voice, and the various significant gestures which he makes, one would be led to conclude that it is a species of language which serves to communicate his sentiments. The fecundity of the hen is great: she lays generally two eggs in three days, and continues to lay through the greater part of the year, excepting the time of moulting, which lasts about two months. After having laid about ten or twelve eggs, she prepares for the anxious task of incubation, and gives the most certain indications of her wants by her cries, cluckings, and the violence of her emotions. Should she be deprived of her own eggs, she will cover those of any other kind, or even fictitious ones of stone or chalk, by which means she wastes herself in fruitless efforts. A sitting hen is a lively emblem of the most affectionate solicitude; she covers her eggs with her wings and body, fosters them with a genial warmth, and changes them gently, that all parts may be properly heated; she seems to perceive the importance of her employment, on which she is so intent, that she neglects,

in some measure, the necessary supplies of food and drink; she omits no care, overlooks no precaution, to complete the existence of the little incipient beings, and to guard against the dangers that threaten them; the cock takes upon himself no part of the duty. Buffon, with his usual elegance, observes "that the condition of a sitting hen, however insipid it may appear to us, is perhaps not a tedious situation, but a state of continual joy: so much has nature connected raptures with whatever relates to the multiplication of her creatures!"

For a curious account of the process of incubation, in the development of the chick, we refer our readers to the above-mentioned author, who has given a minute detail of the several appearances which take place till the chick is ready to come forth.

The Egyptians have a method of hatching eggs without the assistance of the hen, and in great numbers at once, by means of artificial heat. A similar practice has been introduced into this country. The process is managed by steam, and patents taken out for it!



THE TURKEY.

(*Meleagris Gallopavo*, Linn.—*Le Dindon*, Buff.)

It seems to be generally allowed that this bird was originally brought from America, and that in its wild state it is considerably larger than our domestic Turkey. The general colour is black, variegated with bronze and bright glossy green, in some parts changing to purple; the quills are green gold, black towards the ends, and tipped with white; the tail consists of eighteen feathers, brown, mottled and tipped with black; the tail coverts are waved with black and white; on the breast is a tuft of black hairs, eight inches in length; in other respects it resembles the domestic

bird, especially in having a bare red carunculated head and neck, a fleshy dilatable appendage hanging over the bill, and a short blunt spur or knob at the back part of the leg.

Tame Turkies, like every other animal in a state of domestication, are of various colours; of these the prevailing one is dark grey, inclining to black, with a little white towards the end of the feathers; some are perfectly white; others black and white; there is also a beautiful variety of a fine deep copper colour, with the greater quills pure white; the tail of a dirty white; in all of them the tuft of black hair on the breast is prevalent. Great numbers are bred in Norfolk, Suffolk, and other counties, whence they are driven to the London markets in flocks of several hundreds. The drivers manage them with facility, by means of a bit of red rag tied to a long rod, which, from the antipathy these birds bear to that colour, effectually drives them forward.

The motions of the male, when agitated with desire, or inflamed with rage, are very similar to those of the Peacock; he erects his tail, and spreads it like a fan, whilst his wings droop and trail on the ground, and he utters at the same time a dull hollow sound; he struts round and round with a solemn pace, assumes all the dignity of the most majestic of birds, every now and then bursting out abruptly into a loud unmusical gurgle. The hen begins to lay early in the spring; she is very attentive to the business of incubation, and will produce fifteen or sixteen chicks at one time, but seldom has more than one hatch in a season in this climate. Young Turkies, after their extrication from the shell, are very tender, and require

great attention in rearing, being subject to a variety of diseases from cold, rain, and dews; even the sun itself, when they are exposed to its more powerful rays, is said to occasion almost immediate death. As soon as they are sufficiently strong, they are abandoned by the mother, and are then capable of enduring the utmost rigour of our winters.

THE PEACOCK.

(*Pavo cristatus*, Linn.—*Le Paon*, Buff.

To describe the inimitable beauties of this bird, in adequate terms, would be a task of no small difficulty. "Its matchless plumage," says Buffon, "seems to combine all that delights the eye in the

soft and delicate tints of the finest flowers, all that dazzles it in the sparkling lustre of the gems, and all that astonishes it in the grand display of the rainbow." Its head is adorned with a tuft, consisting of twenty-four feathers, whose slender shafts are furnished with webs only at the ends, painted with the most exquisite green, mixed with gold; the head, throat, neck, and breast, are of a deep blue glossed with green and gold; the back of the same, tinged with bronze; the scapular and lesser wing coverts reddish cream colour, variegated with black; the middle coverts deep blue, glossed with green and gold; the greater coverts and bastard wing reddish brown, as are also the quills, some of which are variegated with black and green; the belly and vent are black, with a greenish hue; but the distinguishing character of this singular bird is its train, which rises above the tail, and, when erected, forms a fan of the most resplendent hues: the two middle feathers are sometimes four feet and a half long, the others gradually diminishing on each side; the shafts, which are white, are furnished from their origin nearly to the end, with parted filaments of varying colours ending in a flat vane, which is decorated with what is called *the eye*. "This is a brilliant spot, enamelled with the most enchanting colours; yellow, gilded with various shades; green, running into blue and bright violet, varying according to its different positions; the whole receiving additional lustre from the colour of the centre, which is a fine velvet black." When pleased or delighted, and in the sight of his females, the Peacock erects his train, and displays the majesty of his beauty: all his movements are

full of dignity; his head and neck bend nobly back; his pace is slow and solemn, and he frequently turns slowly and gracefully round, as if to catch the sunbeams in every direction and produce new colours of inconceivable richness, accompanied at the same time with a hollow murmuring voice. The cry of the Peacock, at other times, especially on a summer evening and night, is often repeated, and is very disagreeable.

The Pea-hen is somewhat less than the cock, and though furnished both with a train and crest, is destitute of those dazzling beauties by which he is distinguished. She lays five or six whitish eggs, in some secret spot, where she can conceal them from the male, who is apt to break them: she sits from twenty-five to thirty days, according to the temperature of the climate or season.

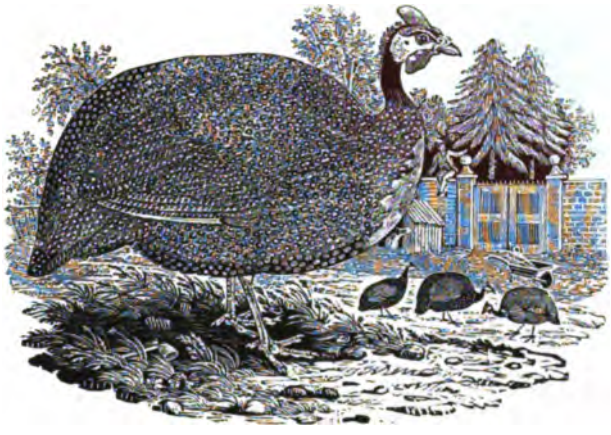
These birds were originally brought from the distant parts of India, and thence have been diffused over the civilized world. The first notice of them is to be found in holy writ,* where we are told they made part of the cargoes of the valuable fleet which every three years imported the treasures of the East to Solomon's court. They are sometimes found wild in many parts of Asia and Africa: the largest and finest are said to be met with in the neighbourhood of the Ganges, and on the fertile plains of India, where they attain a great size: under the influence of that climate this beautiful bird exhibits its dazzling colours, which seem to vie with the gems and precious stones produced in those delightful regions. In colder climates they re-

* 2nd Chron. ix. 21.

quire great care in rearing, and do not obtain their full plumage till the third year. Though rarely brought to the table now, they were in former times considered a delicacy, and made a part of the luxurious entertainments of the Roman voluptuaries.

The females sometimes assume the plumage of the male; this is said to take place after they have done laying. A bird of this kind is preserved in the British Museum.

White Peacocks are not uncommon in England; the eyes of the train are barely visible, and may be traced by a different undulation of shade upon the pure white of the tail.



THE PINTADO.

GUINEA FOWL, OR PEARLED HEN.

(*Numida Meleagris*, Linn.—*La Pintade*, Buff.)

THIS bird is somewhat larger than the Common Hen. The head is bare of feathers, and covered with a naked bluish skin; on the top is a callous conical protuberance; at the base of the lower mandible, on each side, hangs a loose wattle, which in the female is red, and in the male bluish; the upper part of the neck is almost naked, being very thinly furnished with a few straggling hairy feathers; the skin is light ash: the lower part of the neck is covered with feathers of a purple hue; the general colour of the plumage is dark bluish grey, sprinkled with round white spots of different sizes, resembling pearls, from which it has been called the Pearled Hen; its wings are short, and

the tail pendulous, or pointing downwards; its legs are of a dark colour.

This species, which is now very common with us, was originally from Africa, whence it has been diffused over every part of Europe, the West Indies, and America; it formed part of the Roman banquets, and is still much esteemed as a delicacy, especially when young. The female lays a great number of eggs, which she frequently secretes till she has produced her young brood; the egg is smaller than that of a Common Hen, of a rounder shape, and the shell much thicker; it is very delicious eating.

The Pintado is a restless, clamorous bird, with a harsh creaking note, which is very grating and unpleasant, resembling the sound of a rusty hinge, and an often repeated call like "*come back, come back, come back:*" it scrapes the ground like the Hen, and rolls in the dust to free itself from insects. During the night it roosts on high places; and if disturbed alarms every thing within hearing by its unceasing cry. In its natural state of freedom it is said to prefer marshy places.

THE PHEASANT.

(*Phasianus Colchicus*, Linn.—*Faisan vulgaire*, Temm.)

LENGTH two feet eleven inches. The bill is of a pale horn colour; the nostrils are hid under an arched covering; eyes yellow, and surrounded by a space in appearance like scarlet cloth, finely spotted with black; immediately under each eye is a small patch of short feathers of a dark glossy purple; the upper parts of the head and neck are deep purple, varying to glossy green and blue;

lower parts of the neck and the breast reddish chesnut, with black indented edges; the sides and lower part of the breast the same, with pretty large tips of black to each feather, which in different lights vary to a glossy purple; the belly and vent are dusky; back and scapulars beautifully variegated with black and white, or cream colour speckled with black, and mixed with deep orange, all the feathers are edged with black; on the lower part of the back there is a mixture of green; the quills are dusky, freckled with white; wing coverts brown, glossed with green, and edged with white; rump plain reddish brown; the two middle feathers of the tail are about twenty inches long, the shortest on each side less than five, of a reddish brown, marked with transverse bars of black; legs dusky, with a short blunt spur on each, but in some old birds the spurs are as sharp as needles; between the toes there is a strong membrane.

The female is less, and does not exhibit that variety and brilliancy of plumage which distinguish the male: the general colours are light and dark brown, mixed with black, the breast and belly finely freckled with small black spots on a light ground; the tail is short, and barred somewhat like that of the male; the space round the eye is covered with feathers.*

* The Hen Pheasant is sometimes known, when she has done breeding to assume the garb of a male. The late eminent physiologist, John Hunter, in a paper read before the Royal Society, and published in the Philosophical Transactions for 1780, says—"It is remarked by those who are conversant with this bird, when wild, that there appears now and then a Hen Pheasant with the feathers of the cock; and all that they have decided on this subject

The Ring Pheasant is a fine variety of this species; its principal difference consists in a white ring, which encircles the lower part of the neck; the colours of the plumage in general are likewise more distinct and vivid. A fine specimen of this bird was sent us by the Rev. William Turner, of Newcastle, from which the figure was engraven. They are sometimes met with in the neighbourhood of Alnwick, whither they were brought by his Grace the late Duke of Northumberland. That they intermix with the common breed is very obvious, as in some we have seen, the ring was hardly visible, and in others a few feathers only, marked with white, appeared on each side of the neck, forming a white spot. It is much to be regretted that this beautiful breed is likely soon to be destroyed, by those who pursue every species of game with an avaricious and indiscriminating rapacity.

There are many varieties of Pheasants, of extraordinary beauty and brilliancy of colours: in many gentlemen's woods there is a kind as white as snow, which will intermix with the common ones. Many of the gold and silver kinds, brought from China, are also kept in aviaries in this kingdom;

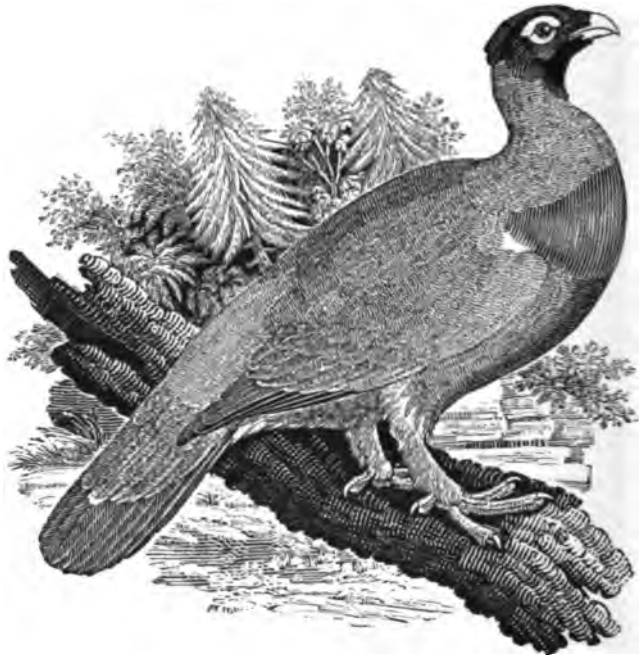
is, that this animal does not breed, and that its spurs do not grow." He further notices, that in two of these birds which he dissected, he found them perfectly feminine, having "both the ovaria and the oviduct." A Pheasant exhibiting the same kind of plumage as those mentioned by Mr. Hunter, was shot in January, 1805, by Sir Thomas Frankland, Bart., and presented to this work. This bird was of the size of the common Hen Pheasant, its tail nearly the same; it was without spurs, and had no scarlet around the eyes, and in rising its cry was that of the hen; in other respects its plumage was nearly like that of the male, only not so brilliant in colour.

the Common Pheasant is likewise a native of the east, and is the only one of its kind that has multiplied in our island. Pheasants are generally found in low woody places, on the borders of plains, where they delight to sport: during the night they roost on the branches of trees. They are very shy birds, and do not associate together except during the months of March and April, when the male seeks the female: they are then easily discoverable by the noise which they make in crowing and clapping their wings, which may be heard at some distance. The hen makes her nest on the ground, like the Partridge, and lays from twelve to fifteen olive-coloured eggs, which are smaller than those of the Domestic Hen: the young follow the mother as soon as they are freed from the shell. During the breeding season the cock Pheasants will sometimes intermix with our Common Hen, and produce a hybrid breed, of which we have known several instances.

Of the Grouse.

BIRDS of this genus generally prefer high northern latitudes, or the more lofty mountainous situations in the central parts of Europe; their food consisting almost entirely of leaves and berries. The larger species are said to be polygamous. The male has greatly the advantage in point of size and beauty of plumage. The smaller families observe the common law of pairing, and of performing together the work of incubation, with great assiduity and affection. In these the difference of sex is very little conspicuous. Some of the species moult once, others twice a year.

The birds of this kind are principally characterized by their strong curved beak, the massive bulkiness of their bodies, and their plumed legs and toes.



THE WOOD GROUSE.

COCK OF THE WOOD, OR CAPERCAILE.

(Tetrao Urogallus, Linn.—*Tétras aurhan*, Temm.)

THIS bird is nearly three feet in length, and four in breadth, and weighs from ten to fifteen pounds. The bill is very strong, convex, and of a light horn colour; over each eye there is a naked skin, of a bright red: the eyes are hazel; the nostrils small, and almost hid under a covering of short feathers, which extend under the throat, and are there much longer than the rest, and black; the head and neck

are elegantly marked with small transverse lines of black and grey, as are also the back and wings, but more irregularly; the breast is black, richly glossed with green on the upper part, and mixed with a few white feathers on the belly and thighs; the sides are marked like the neck; the tail consists of eighteen feathers, which are black, those on the sides are marked with a few white spots: the legs are very stout, and covered with brown feathers; the toes are furnished on each side with a strong pectinated membrane. The female is considerably less than the male, and differs from him greatly in her colours; her throat is red; the transverse bars on the head, neck, and back are red and black; the breast pale orange; belly barred with orange and black, the top of each feather white; the back and wings mottled with reddish brown and black; the scapulars tipped with white; the tail is of a deep rust colour, barred with black, and tipped with white.

This beautiful bird is found chiefly in high mountainous regions, and is very rare in Great Britain. Pennant mentions one, as an uncommon instance, which was shot near Inverness. It was formerly met with in Ireland, but is now supposed to be extinct there. In Russia, Sweden, and other northern countries, it is very common; it lives in the forests of pine, with which those countries abound, and feeds on the cones of the fir trees, which, at some seasons, give an unpleasant flavour to its flesh, so as to render it unfit for the table; it likewise eats various kinds of plants and berries, particularly the juniper. Early in the spring the season for pairing commences; during this period,

the cock places himself on an eminence, where he displays a variety of attitudes: the feathers on his head stand erect, his neck swells, his tail is displayed, and his wings trail almost on the ground, his eyes sparkle, and the scarlet patch on each side of his head assumes a deeper dye; at the same time he utters his well-known cry, which has been compared to the sound produced by the whetting of a scythe; it may be heard at a considerable distance, and never fails to draw to him his faithful mate. The female lays from eight to sixteen eggs, which are white, spotted with yellow and not so large as those of the Common Hen; for this purpose she chooses some secret spot, where she can sit in security: she covers her eggs carefully over with leaves, when she is under the necessity of leaving them in search of food. The young follow the hen as soon as they are hatched, sometimes with part of the shell attached to them, and remain with her till the return of spring.

THE BLACK GROUSE.

BLACK GAME, OR BLACK COCK.

(*Tetrao Tetrix*, Linn.—*Tétras birkhan*, Temm.)

THIS bird, though not of greater bulk than the Common Hen, weighs nearly four pounds; length about one foot ten inches, breadth two feet nine. The bill is dark; the eyes deep blue; below each eye is a spot of dirty white, and above a larger one, of a bright scarlet, which extends almost to the top of the head; the general colour of the plumage is deep black, richly glossed with blue on the neck and rump; the lesser wing coverts are dusky brown; the greater white, which extends to the ridge of the wing, forming a spot of that colour on the shoulder when the wing is closed; the quills

are brown, the lower parts and tips of the secondaries white, forming a bar of white across the wing; there is likewise a spot of white on the bastard wing; the feathers of the tail are almost square at the ends, and when spread out, form a curve on each side; the under tail coverts are pure white; the legs and thighs dark brown, mottled with white; the toes toothed on the edges like those of the former species. In some of our specimens the nostrils were thickly covered with feathers, whilst in others they were quite bare, probably owing to the different ages of the birds.

These birds, like the former, are common in Russia, Siberia, and other northern countries, chiefly in high and wooded situations; and in the northern parts of our own island on uncultivated moors; they feed on various kinds of berries and other fruits, the produce of wild and mountainous places; in summer they frequently come down from their lofty situations for the sake of feeding on corn. They do not pair, but on the return of spring the males assemble in great numbers at their accustomed resorts, on the tops of high and heathy mountains, when the contest for superiority commences and continues with great bitterness till the vanquished are put to flight; the victors being left in possession of the field, place themselves on an eminence, clap their wings, and with loud cries give notice to their females, who immediately resort to the spot. It is said that each cock has two or three hens, which seem particularly attached to him. The female is about one-third less than the male, and differs from him considerably in colour; her tail is likewise much less forked. She makes

an artless nest on the ground, and lays from eight to twelve eggs, of a yellowish colour, with spots of a rusty brown. The young cocks at first resemble the mother, and do not acquire their male garb till towards the end of autumn, when their plumage gradually changes to a deeper colour and assumes that of a bluish black, which it afterwards retains.

RED GROUSE.

RED GAME, MOOR GAME, GORCOCK, OR MOOR COCK.

(*Tetrao Scoticus*, Linn.—*Tétras rouge*, Temm.)

THE length of this bird is fifteen inches; weight about nineteen ounces. The bill is black; the eyes hazel; nostrils shaded with small red and black feathers; at the base of the lower bill is a white spot on each side: the throat is red; each eye is arched with a large naked spot, of a bright scarlet; the whole upper part of the body is beautifully mottled with deep red and black, which gives it the appearance of tortoise-shell; the breast and belly are of a purplish hue, crossed with small dusky lines: the tail consists of sixteen feathers of equal lengths, the four middlemost barred with red, the others black; quills dusky; the legs are clothed with soft white feathers down to the claws, which

are strong, and of a light colour. The female is somewhat less; the naked skin above each eye is not so conspicuous, and the colours of her plumage in general are much lighter than those of the male.

This bird is found in great plenty in the wild, heathy, and mountainous tracts in the northern counties of England and Wales, and particularly in the Highlands of Scotland. They are likewise common in the Orcades, though not one is to be met with in the Zetland Islands, except accidentally. It is noticed as being peculiar to Britain; those found in the mountainous parts of France, Spain, Italy, and elsewhere, as mentioned by Buffon, are probably only varieties of this kind, and no doubt would breed with it. It is to be wished that attempts were more frequently made to introduce a greater variety of these useful birds into this country, to stock our waste and barren moors with a rich fund of delicate and wholesome food; but till the legislature shall alter or abrogate our very unequal and injudicious game laws, there hardly remains a single hope for the preservation of such birds of this species as we now have.

Red Grouse pair in the spring: the female lays eight or ten eggs on the ground. The young ones follow the hen the whole summer; as soon as they have attained their full size, they unite in flocks of forty or fifty, and are then exceedingly shy and wild.

WHITE GROUSE.

WHITE GAME, OR PTARMIGAN.

(*Tetrao Lagopus*, Linn.—*Tétras ptarmigan*, Temm.)

THIS is nearly the same size as the Red Grouse. The bill is black; orbits bright red; the upper parts of the body pale brown or ash, mottled with small dusky spots and bars; the bars on the head and neck are somewhat broader, and mixed with white; the under parts are white, as are also the wings, excepting the shafts of the quills, which are black. This is its summer dress, which in winter is changed to a pure white, excepting that in the male there is a black line between the bill and the eye; the tail consists of sixteen feathers: the two middle ones ash-coloured in summer, and white in winter, the next two are slightly marked with white near the ends, the rest are wholly black;

the upper tail coverts are long, and almost cover the tail.

The White Grouse is fond of lofty situations, where it braves the severest cold: it is found in most of the northern parts of Europe, even as far as Greenland; in this country it is only to be met with on the summits of some of our highest hills, chiefly in the Highlands of Scotland, in the Hebrides and Orkneys, and sometimes, but rarely, on the lofty hills of Cumberland and Wales. Buffon, speaking of this bird, says, that it avoids the solar heat, and prefers the biting frosts on the tops of mountains; for as the snow melts on the sides of the mountains, it constantly ascends, till it gains the summit where it forms holes and burrows in the snow. They pair at the same time as the Red Grouse: the female lays eight or ten eggs, which are white, spotted with brown: she makes no nest, but deposits them on the ground. In winter they fly in flocks, and are so little accustomed to the sight of man, that they are easily shot or taken in a snare. They feed on the wild productions of the hills, which sometimes give the flesh a bitter, but not unpalatable taste: it is dark coloured, and has somewhat the flavour of the hare.

THE RED-LEGGED PARTRIDGE.

GUERNSEY PARTRIDGE.

(*Perdix Rubra*, Briss.—*Perdrix rouge*, Temm.)

LATHAM describes this bird as being thirteen inches in length, but does not mention either its breadth or weight. The bill, legs, and orbits are red; the irides hazel; chin and throat dull white, surrounded by a black line or streak, which passes from the brow and nostrils to the eyes, behind which it continues, falls down before the auriculars, and meets on the fore part of the neck; a white streak extends from the brow over the eyes towards the hinder part of the neck; the forehead is bluish ash, fading into a rusty chesnut behind, where the feathers are somewhat elongated, and can be erected or depressed at pleasure; the hinder

part of the neck is rusty chesnut, formed into a stripe, which falls down towards the shoulders; the rest of the neck is pale ash, inclining to blue, with numerous longish spots of black; below this, to the shoulders and breast, the plumage is rusty brown, with a vinous reflection; the belly and thighs pale rusty chesnut; the breast pale lead grey; sides beautifully ornamented with stripes composed of black, bright reddish chesnut, and white; the upper parts of the plumage are rufous brown, somewhat tinged with olive grey; quills nearly the same, but darker, the outer edges yellowish: vent brownish ash: the tail consists of sixteen feathers, the middle ones greyish brown, the outer ones deep reddish chesnut; under coverts of the tail nearly the same; the legs are furnished with a kind of double knob instead of a spur.

These birds are found in various parts of the old continent; and are common in Germany, France, and Italy, the islands of Madeira, Guernsey, and Jersey; but the accounts of their breeding in England, are contradictory. In a wild state, they prefer woody and heathy wastes to inclosed ground, but they are easily tamed, and soon become offensively familiar. Latham says they are "now and then met with in England, but do not breed there." Montagu says, "Notwithstanding many gentlemen have turned out the Red-legged Partridge upon their estates, with a view to propagate the species at large, few have succeeded." He then, in the next sentence, says, "Mr. Daniel assures us that they are now plentiful near Orford, in Suffolk, by the Marquis of Hertford having imported many thousand eggs, which were hatched under

hens, and liberated;" and that this gentleman found a covey of birds in 1777, near Colchester, consisting of fourteen, several of which he shot. It has been represented to the author by several of his friends, that these birds have become so numerous, in some of the eastern counties of England, that they have banished the native breed.

A stuffed specimen, from which the above figure was taken, was lent to this work by the late Mr. John Wingate, of Newcastle.

THE PARTRIDGE.

(*Perdix Cinerea*, Lath.—*Perdrix Grise*, Temm.)

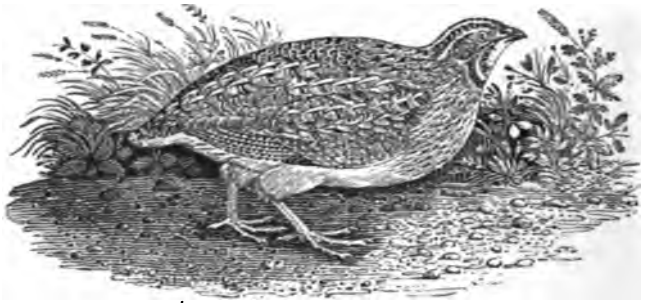
LENGTH about thirteen inches. Bill light brown: eyes hazel; the general colour of its plumage is brown and ash, beautifully mixed with black; each feather streaked down the middle with buff; the sides of the head are tawny; under each eye is a small saffron-coloured spot, which has a granulated appearance, and between the eye and the ear a naked skin of a bright scarlet, which is not very conspicuous but in old birds; on the breast there is a crescent of a deep chesnut; the tail is short and drooping; the legs are greenish white, and furnished with a small knob behind. The female has no crescent on the breast, and her colours in general are not so distinct and bright as those of the male. The moult takes place once a year.

Partridges are found chiefly in temperate climates; the extremes of heat and cold being equally unfavourable to them: they are nowhere in greater

plenty than in this island, where, in their season, they contribute to our entertainments. It is much to be regretted, however, that the means taken to preserve this valuable bird should, in a variety of instances, prove its destruction; the proper guardians of the eggs and young ones, tied down by ungenerous restrictions, are led to consider them as a growing evil, and not only connive at their destruction, but too frequently assist in it.

Partridges pair early in the spring, and once united it is rare that anything but death separates them: the female lays from fourteen to eighteen or twenty eggs, making her nest of withered leaves and grass upon the ground. The young birds run as soon as hatched, frequently encumbered with part of the shell. It is no unusual thing to introduce Partridges' eggs under the Common Hen, who hatches and rears them as her own: in this case the young birds require to be fed with ants' eggs, which are their favourite food, and without which it is almost impossible to bring them up; they likewise eat insects, and when full grown, all kinds of grain and young plants. The affection of the Partridge for her young is peculiarly strong and lively: she is greatly assisted in the care of rearing them by her mate; they lead them out in common, call them together, gather for them their proper food, and assist in finding it by scratching the ground; they frequently sit close by each other, covering the chickens with their wings, like the Hen. In this situation they are not easily flushed; the sportsman, who is attentive to the preservation of his game, will carefully avoid giving any disturbance to a scene so truly interesting; but should

the pointer come too near, or unfortunately run in upon them, there are few who are ignorant of the confusion that follows; the male first gives the signal of alarm by a peculiar cry of distress, throwing himself at the same moment more immediately in the way of danger, in order to deceive or mislead the enemy; he flies, or rather runs, along the ground, hanging his wings, and exhibiting every symptom of debility, whereby the dog is decoyed, in the too eager expectation of an easy prey, to a distance from the covey; the female flies off in a contrary direction, and to a greater distance, but returning soon after by secret ways, she finds her scattered brood closely squatted among the grass, and collecting them with haste, leads them from the danger before the dog has had time to return from his pursuit.



THE QUAIL.

(*Perdix Coturnix*, Lath.—*La Caille*, Temm.)

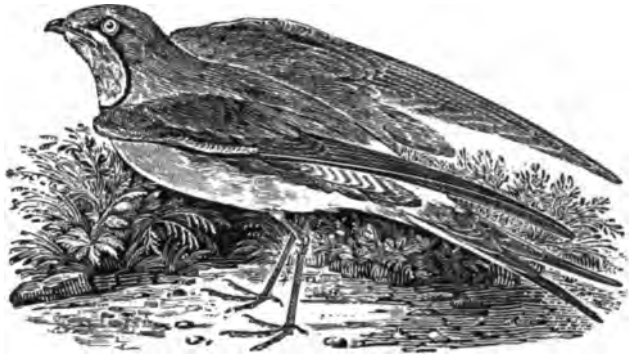
LENGTH seven inches and a half. Bill dusky; eyes hazel; the colours of the head, neck, and back are a mixture of brown, ash, and black; over each eye there is a yellowish streak, extending behind the auriculars, and another of the same over the middle of the forehead to the nape; a dark line passes from each corner of the bill, forming a kind of divided gorget about the throat; the scapular feathers are marked by a light yellowish streak down the middle of each; quills lightish brown, with small rust-coloured bands on the exterior edges of the feathers; the breast is pale rusty, spotted with black, and streaked with pale yellow; the tail consists of twelve feathers, barred like the wings; belly and thighs yellowish white; legs pale brown. The female wants the black spots on the breast, and is easily distinguished by a less vivid plumage.

Quails are very generally diffused throughout Asia, Africa, and the southern parts of Europe, but rare in temperate climates; they are birds of passage, and are seen in immense flocks flying across the Mediterranean, from Europe to the shores of Africa, in the autumn, and returning again in the spring, frequently alighting in their passage on the intervening islands, particularly of the Archipelago, which they almost cover with their numbers. On the western coasts of the kingdom of Naples such prodigious numbers have appeared, that an hundred thousand it is said have been taken in a day within the space of four or five miles. From these circumstances it appears highly probable, that the Quails which supplied the Israelites with food, during their journey through the wilderness, were driven thither on their passage to the north, by a wind from the south-west, sweeping over Ethiopia and Egypt towards the shores of the Red Sea. Quails are not very numerous here: they breed with us, and many of them are said to remain throughout the year, changing their quarters from the interior to the sea coast. The female makes her nest like the Partridge, and lays to the number of six or seven* eggs of a greyish colour, speckled with brown. The young birds follow the mother as soon as hatched, but do not continue long together; they are scarcely grown up before

* In France they are said to lay fifteen or twenty.—*Buff.*

They are sometimes seen in a bevy of fifteen together, in this country; and while running through the meadows, are known by their quickly repeated short whistle of "whit, whit." They fly quick and near the ground.

they separate; or, if kept together, they fight obstinately, their quarrels frequently terminating in each other's destruction. From this quarrelsome disposition in the Quail they were made use of by the Greeks and Romans as we use Game-cocks, for the purpose of fighting. We are told that Augustus punished a prefect of Egypt with death, for bringing to his table one of these birds, which had acquired celebrity by its victories. The Chinese are much addicted to the amusement of fighting Quails, and in some parts of Italy it is said likewise to be no unusual practice. After feeding two Quails very highly, they place them opposite, and throw in a few grains of seeds between them: the birds rush upon each other with the utmost fury, striking with their bills and heels till one of them yields.



THE PRATINCOLE.

AUSTRIAN PRATINCOLE.

(*Glareola Torquata*,* Meyer.—*Glaréole à collier*, Temm.)

BILL short, strong, strait, hooked at the end, gape wide; nostrils near the base, linear, oblique; legs long and slender; toes connected by a membrane at the base; tail forked, consisting of twelve feathers. Latham notices only three species and four varieties of this genus of birds. In some of its habits, manners, and external characters, it strikingly resembles birds of the Swallow kind, while in the length and form of the legs and toes, the rapidity with which it runs, and its frequenting the borders of fresh waters, &c., it comes near the Runners and Waders.

* The order Alectorides of Temminck includes one British species, viz., Glareola Torquata.

The Pratincole has not till lately been noticed as a British bird. Montagu says, one of them was shot near Liverpool, on the 18th May, 1804, and was taken to Mr. Bullock* before it was cold, which specimen is now in the collection of Lord Stanley. It was shot in the act of taking beetles on the wing, the remains of which were found in its stomach. The stuffed specimen from which our figure and description were taken, was lent to this work by the late Mr. John Wingate, of Newcastle. The length is about ten inches; bill black and short; the upper mandible convex or hooked; under one red at the base; the gape is wide; the irides are said to be reddish; colour of the plumage on the upper parts brown, but the crown of the head and neck are somewhat tinged with rufous; primary quills dark brown, secondaries paler and tipped with white; throat brownish buff; a black line begins in front of the eye, and passing underneath it before the auriculars, falls down and encircles the throat; below this to the breast, the feathers are rufous pale brown, fading into buff on the lower part. The belly, sides of the rump, and upper and under coverts of the tail, are white; the feathers at the base of the tail are also white on both the outer and inner webs; the rest of the feathers are deep brown; the tail is much forked, and the two outside feathers are about an inch and a quarter longer than the rest; the wings, as well as the tail, are long, and both are formed like those of the Swallow; the edge of the wing from the *alula spuria*

* Mr. Bullock also met with one in the summer of 1812, in Unst, one of the Zetland Isles.

to the greater coverts, is whitish; the under coverts of the wing are partly brown and partly bright ferruginous; the legs are long, and bare above the knee; toes brown, the claws slightly bent. These birds are said to inhabit Germany, particularly on the borders of the Rhine, are sometimes seen in France, but are most plentiful in the deserts towards the Caspian Sea, frequenting the dry plains in great flocks. They are also common throughout the deserts of Independent Tartary, as far as the rivers Kamyschlossca and Irtish. They make their nest in holes, like the Sand Martin, in the sandy banks of rivers, and lay six or seven eggs.

Of the Bustard.

THE birds of this genus, though by some arranged amongst the Waders, have many of the external characters of the order Gallinæ, such as the bulky, heavy body, short, strong, curved bill, &c. They are very wild and difficult to be discovered, and show considerable address in evading pursuit; the moult takes place twice a year.

It is much to be wished that the Bustard were more cultivated in this country; but we suspect that the division and inclosure of commons will now oppose an effectual barrier to every attempt, unless by domestication.

THE GREAT BUSTARD.*

(Otis Tarda, Linn.—*Outarde barbue*, Temm.)

THIS very singular bird, which is the largest of our land birds, is about four feet long, and weighs from twenty-five to thirty pounds; its characters

* This bird commences the order Cursores of Temminck, of which there are only two British genera, viz., Otis and Cursorius.

are peculiar, and with such as connect it with birds of the gallinaceous kind, it has others which seem to belong to the Ostrich and the Cassowary. The bill is strong, and rather convex; the eyes red; on each side of the root of the lower mandible there is a tuft of feathers about nine inches long; the head and neck are ash-coloured. In the one described by Edwards, there were on each side of the neck two naked spots, of a violet colour, but which appeared to be covered with feathers when the neck was much extended. The back is barred transversely with black and bright rusty on a pale reddish ground; the quills are black; belly white; the tail consists of twenty feathers; the middle ones are rufous, barred with black; those on each side are white, with a bar or two of black near the ends; the legs are long, naked above the knees, and dusky; it has no hind toe: the nails are short, strong, and convex both above and below; the bottom of the foot is furnished with a callous prominence, which serves instead of a heel. The female is not much more than half the size of the male; the top of her head is deep orange, the rest of the head brown; her colours are not so bright as those of the male, and she has no tuft on each side of the head. There is likewise another very essential difference between the male and the female: the former is furnished with a sack or pouch, situated in the fore part of the neck, and capable of containing about two quarts; the entrance to it is immediately under the tongue.* This singular reservoir was first discovered by Dr.

* Barrington's Misc. p. 553.

Douglas, who supposes that the bird fills it with water as a supply in the midst of those dreary plains where it is accustomed to wander;* it likewise makes a further use of it in defending itself against the attacks of birds of prey; on such occasions it throws out the water with such violence as to baffle the pursuit of its enemy.

Bustards were formerly more common in this island than at present; they are now found only in the open countries of the South and East, in the plains of Wiltshire, Dorsetshire, and in some parts of Yorkshire; they were formerly met with in Scotland, but are now extinct there. They are slow in taking wing, but run with great rapidity, and when young are sometimes taken with greyhounds, which pursue them with great avidity: the chase is said to afford excellent diversion to men whose pleasures in life consist almost wholly in excitements of this sort. The Great Bustard is granivorous, but feeds also on herbs of various kinds; it is likewise fond of those worms which come out of the ground in great numbers before sunrise in the summer; in winter it frequently feeds on the bark of trees; like the Ostrich, it swallows small stones,† bits of metal, and the like. The female builds no nest, but making a hole on the ground, drops two eggs, of a pale olive brown, with dark

* One of these birds, which was kept in a caravan, among other animals, as a show, lived without drinking. It was fed with leaves of cabbages and other greens, and also with flesh and bread.

† In the stomach of one which was opened by the academicians, there were found, besides small stones, to the number of ninety doubloons, all worn and polished by the attrition of the stomach. —*Buff.*

spots. She sometimes leaves her eggs in quest of food; and if, during her absence, any one should handle, or even breathe upon them, she immediately abandons them.

Bustards are found in various parts of Europe, Asia, and Africa, but have not hitherto been discovered in the new continent. The figure was taken from a preserved specimen at Wycliffe.

THE LITTLE BUSTARD.

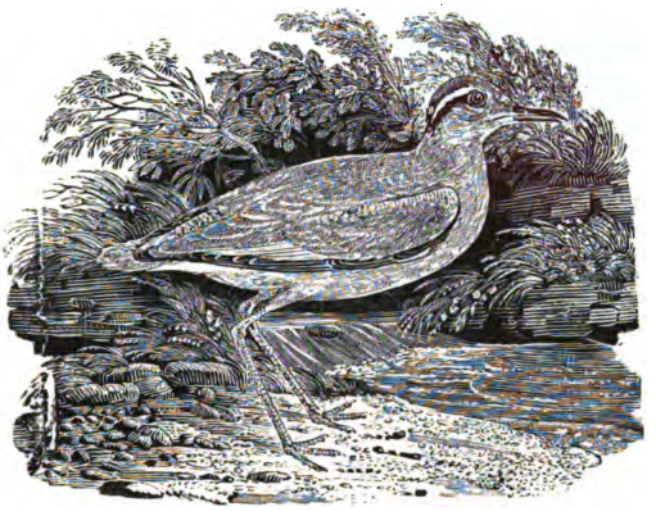
(Otis Tetrax, Linn.—*Outarde canepetière*, Temm.)

LENGTH seventeen inches. The bill is pale brown; irides red; the top of the head black, spotted with pale rusty: the sides of the head, the chin, and throat, reddish white, marked with a few dark spots; the whole neck in the male is black, encircled with an irregular band of white near the top and bottom; the back and wings rufous, mottled with brown, and crossed with fine irregular black lines: the under parts of the body, and outer edges of the wings, are white; the tail consists of eighteen feathers; the middle ones tawny, barred with black, the others white, marked with a few irregular bands of black; legs grey. The female

(from which our figure was taken) differs from this description, is smaller, and has not the black collar; in other respects she nearly resembles the male.

This bird is very uncommon in this country; and we have seen only two, both of them females. The figure was drawn from one sent by W. Trevelyan, Esq., which was taken on the edge of Newmarket Heath, and kept alive about three weeks in the kitchen, where it was fed with bread and other things, such as poultry eat. It is common in France, where it is taken in nets like the Partridge. It is a very shy and cunning bird; if disturbed, it flies two or three hundred paces, not far from the ground, and then runs away much faster than any one can follow on foot. The female lays in June, to the number of three or four eggs, of a glossy green: as soon as the young are hatched, she leads them about as the Hen does her chickens; they begin to fly about the middle of August.

Both this and the Great Bustard are excellent eating, and would well repay the trouble of domestication; indeed, it seems surprising, that we should suffer these fine birds to be in danger of total extinction, although, if properly cultivated, they might afford as excellent a repast as our own domestic poultry, or even as the Turkey, for which we are indebted to distant countries.



THE CREAM-COLOURED COURSER.

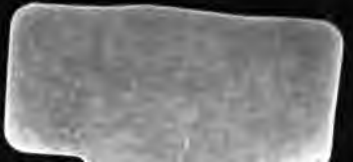
CURSORIUS EUROPÆUS, *Latham.*

(Cursorius Isabellinus, Meyer.—*Courc-vite isabelle*, Temm.)

THE length of this very rare bird is about ten inches. The bill is black, the upper mandible rather flatted, and bent downward at the tip, whence, to the feathers of the brow, it measures nearly seven-eighths of an inch. The legs, from the tread of the foot to the middle of the knee, are two inches and a quarter; thence upwards, or the bare part of the thigh, is about an inch. The middle toe, including the nail, is about seven-eighths of an inch, and is connected with the outer one by a small web. It is without a back toe. Behind the

eyes, a black patch or stripe commences, and is nearly covered by a dull white streak, which passes above the eyes, and both together continue to, and fall over, the nape. The hinder part of the head is of a bluish ash. All the foreparts of the wing, below the wrist, including the bastard wing, as well as the primaries and secondaries, are brownish black, more or less edged and tipped with dull white. The rest of the plumage is of a cinnamon colour, palest on the breast and belly. The rump is barred with brown zig-zag lines; at the elbow joint of the wings, the feathers are also marked in a somewhat similar way. Buffon seems to have been the first who described this bird, from a single specimen taken in France; and Latham, in his copious and excellent work on Ornithology, describes and figures it from one which was shot near St. Alban's, in East Kent, by Wm. Hammond, Esq.

The stuffed specimen, from which the foregoing figure was made, was obligingly lent to this work by the late Rev. T. Gisborne, A.M., Prebendary of Durham, and was reported to him as having been shot in Charnwood Forest, Lincolnshire, on the 15th of October, 1827.

ASHMOLEAN OXFORD MUSEUM

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